With the Medical Officer of Health's Compliments.

HEALTH DEPARTMENT
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1893.

CITY & COUNTY OF BRISTOL

ANNUAL REPORT

OF THE

Medical Officer of Health.

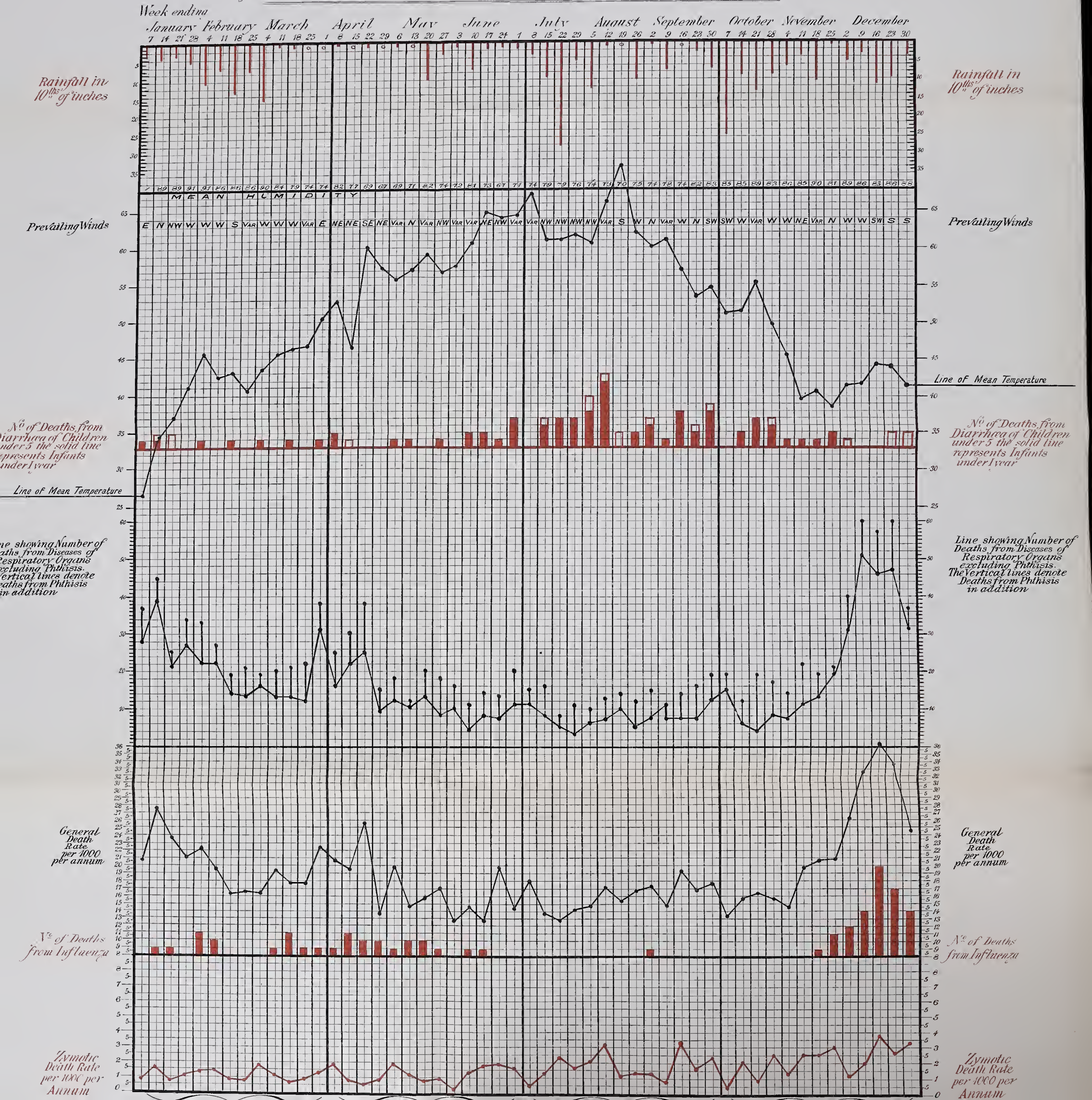
Printed by Order of the Sanitary Committee.

BRISTOL:
BENNETT BROS, LTD., PRINTERS, COUNTERSLIP.

1894.

CHART

Showing Mean Temperature, Rainfall, relative Humidity (saturation = 100) prevailing Winds, also Number of Deaths returned from Diseases of Respiratory Organs excluding Phthisis, from Phthisis, from Diarrhœa, and from Influenza, the general Death Rate and the Zymotic Death Rate in the Bristol Sanitary District for each Week of the Year 1893



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1893.

VIRTUTE · ET · INDUSTRIA

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SANITARY COMMITTEE,

1893-94.

The Mayor: Mr. Councillor Symes.

Chairman: Mr. Alderman Cope-Proctor.

Vice-Chairman: Mr. Councillor Pearson.

Mr. Councillor Barnett.

Mr. Councillor Bastow.

Mr. Councillor Champion.

Mr. Councillor Coulthard.

Mr. Alderman Dix.

Mr. Councillor Fear.

Mr. Councillor James.

Mr. Councillor Levy.

Mr. Councillor Lewis.

Mr. Councillor Lloyd.

Mr. Councillor Swaish.

Mr. Councillor Todd.

Bristol Urban Sanitary Authority.

MEDICAL OFFICER OF HEALTH'S DEPARTMENT, 1893.

Medical Officer of Health:
D. S. Davies, M.D., (Lond.), D.P.H. (Cantab).

Assistant Medical Officers of Health:
J. C. Heaven, L.R.C.P., D.P.H.,
W. Dowson, M.D., D.P.H. (Cantab).

Inspector of Nuisances: Chief Inspector J. W. Kirley.

Superintendent Inspector: *‡T. Lowther.

District Sanitary Inspectors:
District No. 1—*J. Wilkinson.
No. 2—*H. Hasell.
No. 3—*†W. H. Perry.
No. 4—G. E. Bush.
No. 5—*†F. R. Slade.
No. 6—H. Calcutt.
No. 7—*J. T. Lyons.

Special Sanitary Inspectors:

Inspector of Bakehouses and Common Lodging Houses:
*S. O. Dimond.

Inspector of Meat, Fish, and Slaughter Houses: S. Thomas.

Inspector of Dairies, Cowsheds, and Milkshops:
*†E. J. Casely.

Inspector of Houses Let in Lodgings: *H. J. Kirley.

Inspector of Workshops, Smoke, and Offensive Trades:
*†J. F. Cotty.

Statistical Clerk: E. W. Harris.

Clerk: R. R. Warren.

Medical Attendant at the City Isolation Hospitals:
Dr. G. C. Paull.

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* Certified Inspector Sanitary Institute.
‡ Certified Surveyor Sanitary Institute.
† Registered Plumber.

REPORT.

PART I.

General Sanitary Condition of the Urban Sanitary District of Bristol.

GENTLEMEN,

The present limits of this District are those of the City and County of Bristol as fixed at the last extension of the boundaries in 1835, and containing a population enumerated at the last census (1891) at 221,665, and estimated to the middle of the year 1893 at 225,028.

The increase of population during the 59 years since 1835, has caused the population to overflow in such manner that Bristol proper forms now but part of a larger Bristol, and the City is surrounded on two sides by Urban Districts containing an aggregate population of 59,509 (Census, 1891), under different administrations, but with continuous streets and houses, and forming practically one and the same community with the City.

Site and Soil.

Bristol is situated in N. Lat. 51° 27′ 6·3″ and W. Long. 2° 35′ 28·6″. The old City lies in great part on low ground in a broad valley lined by the alluvial deposit of the Avon and its tributary the Frome: parts of the City, *e.g.*, High Street and Redcliff, being upon higher ground on the new red sandstone (trias), through which rock the New Cut, or artificial course of the Avon, has been cut, and upon which Bedminster is built.

The high table land of Clifton, Cotham, and Redland, to the north and west of the City, is situated upon the denuded edges of an anticlinal arch of carboniferous rocks, upon which, in certain limited areas, beds of newer formation (*e.g.*, lias) lie unconformably. On Clifton and Durdham Down the carboniferous limestone is exposed over a large area : and here the gorge of the Avon, cut by the river as it turns to the north to join the Severn, forms the western boundary of the district.

The steep ascents, extending from Granby Hill on the west, past Brandon Hill to St. Michael's Hill and Marlborough Hill on the east, are on the outcrop of the millstone grit.

Considerable portions of the north-east and east parts of the City lie upon the new red sandstone, while Totterdown part of Cotham, and the slope towards Ashley are upon beds of lias limestone.

Water Supply.

The Water Supply is in the hands of a Private Company, and is obtained by gravitation from springs in the triassic conglomerates, and in the carboniferous limestone on the sides of the Mendips, at distances of from 5 to 16 miles from the City. The water from two of these springs (Sherborne and Coldbath) is brought direct into the City : that from the other springs is intercepted by the storage reservoirs at Barrow Gurney, 310 feet above Ordnance datum, with an extreme holding capacity of 750,000,000 gallons, whence it is brought into the City, joining the direct supplies at Redcliff. The combined waters supply the lower parts of the City *en route*, and also rise by gravitation to the pumping station and reservoir at Oakfield Road (200 feet above O.D.), from which they are pumped up to the Durdham Down service Reservoir (320 feet above O.D.), for the supply of Clifton and the higher parts of the district.

After the dry winters of 1861-63, it was found necessary to provide permanent pumping works for a supplementary supply in dry years, from wells at Chelvey, eight miles from Bristol, sunk in the new red sandstone (triassic), 200 yards from any inhabited place.

The water is supplied to the City at constant service, and the average daily supply per head is calculated at about 22 gallons.

All water supplied from the Barrow store reservoirs is now filtered before delivery.

As to any risk of excremental contamination, the water appears to be above suspicion: and no case of disease has within our knowledge ever been traced to its use.

The Company has power to make an annual charge for each closet flush, in addition to the charges for other domestic purposes, not now enforced in the case of a second W. C. cistern in houses of the gross value of £30 and under: hence the majority of out-door closets throughout the City are dependent upon hand flushing.

New Source of Supply.—In 1888 the Company obtained powers to take the Richford Spring, near Blagdon, and the Langford Spring, at Langford, subject to reservation of prior claims of the district upon those springs: and in 1889 they obtained powers to make a reservoir by impounding the river Yeo. This reservoir, to contain a maximum of 1,700,000,000 gallons, will receive the water from these combined sources, and from it the water will be lifted to join the storage at Barrow. The source of the Yeo is from deep springs, similar to those furnishing the established supply.

In view of the great danger of polluted water-supplies, more especially in times of Cholera, special attention has been directed for some years to the condition of the local wells, many of which are still in use, especially in the lower parts of the City. During the last year 104 samples have been subjected to analysis, the closure of 26 polluted wells has been secured, and a pure supply of water has been laid on to 223 houses. Similarly, in the past five years, 117 polluted wells have been closed, and a total of 465 houses supplied with pure water, corresponding to a population of over 2,000 persons.

The City Analyst's (Mr. F. W. Stoddart) remarks on the samples submitted to him for analysis during the year are of considerable importance :—

SHALLOW WELLS.

During the year analyses have been made of 104 samples of water from shallow wells situated for the most part in the Districts of St. James, St. Paul, and St. Philip.

The majority of these wells are sunk in the new red sandstone, a formation which in favourable situations affords an abundant supply of excellent water.

In Bristol, however, the conditions are not favourable. The wells in question drain their supply from the porous beds of sand and marl, which in turn are fed from the high ground to the north and west. The gathering ground therefore being thickly populated, it is hardly likely to furnish water of entirely satisfactory quality: whilst the permeable strata into which the wells are sunk are at the same time occupied by an intricate network of drains, in many cases of imperfect construction. Moreover, the structure of the new red beds allows of the ready passage of water in all directions, the effect of which condition is that one imperfect drain will influence the water for a considerable distance around.

It is not surprising, therefore, to find that but one of the samples examined failed to shew more or less abundant evidence of sewage contamination.

Mention may also be made of another group of wells situated mostly in the Parish of St. Augustine, where the conditions are somewhat different.

Here the wells are sunk into the millstone grit, which itself forms the gathering ground. This formation consists of beds of hard silicious rock separated by "partings" of clay, the whole dipping sharply to the south-east. The water finds its way along the partings, and is so conveyed direct to the wells, and not through the medium of a porous subsoil. Unfortunately, the outcrop of these hills is, and has been for many years, thickly populated, with the result that the water is fouled both at its source and along its course, so that here, again, it is difficult to find a well that does not contain sewage products. As one of these wells supplies a public fountain with water of this character, the importance of recognising the condition of affairs is obvious.

In striking contrast with these waters is that furnished by the Water Works Company. This water, collected under very similar geological conditions, but from localities not subject to human interference, shews no indications of the pollution so strongly marked in that of the local wells.

Sewerage, Drainage, and Excrement Disposal.

The sewers of Bristol, as they now exist, date from 1851, when their control was transferred from the Commissioners of Paving and Lighting to the Town Council acting as the Sanitary Authority.

The Borough consists of six drainage districts:—

1. Clifton High Level.
2. Bedminster.
3. Clifton Low Level.
4. St. Philip's.
5. Frome.
6. Avon Intercepting.

1. The Clifton High Level Main Sewer commences in Hampton Road, in size 3′ 6″ × 3′ oval, with a mean gradient of 1 in 300, passes under the College grounds at a depth of 64′, it now increases to 4′ × 3′ 6″ and passes down the new Zigzag at an incline of 1 in 4 to discharge into the tidal Avon. Length of new sewers 11 miles, area of district drained 1,041 acres. Completed in 1857.

2. The Bedminster Main Sewer commences in East Street, in size 4′ 6″ × 4′, joins the larger sewer of the Avon Sewer District 6′ × 5′ 6″, which is laid at a gradient of 1 in 300, and being at low level, acts during high tide as a reservoir. The discharge is into the tidal Avon at Clift House. The Parsons Street Sewer, on the boundary of this district, in size 2′ 6″ × 2′, passes along Parsons Street, through Ashton at a gradient of 1 in 300, to a separate discharge at Clift House. Length of sewers 5¾ miles, area of district drained 607 acres. Completed in 1858.

3. The Clifton Low Level Sewer commences at the bottom of Jacob's Wells, in Hotwell Road, in size 3′ 6″ × 3′, continues along Hotwell Road, with storm overflows into the Floating Harbour, and past Dowry Parade and St. Vincent's Parade, to the high level outlet, increasing to 4′ 6″ × 4′, at a mean gradient of 1 in 600. Length of new sewers 3 miles, area of district drained 279 acres. Completed in 1859.

4. The St. Philip's District Main Sewer extends from Baptist Mills, beneath Old Market Street, Bread Street, and the Feeder Canal, to discharge into the tidal Avon at Totterdown Lock. Size 3′ 6″ × 3′, gradient 1 in 500, length of new sewers 7 miles, area of district drained 685 acres. Completed in 1861.

5. The Frome Intercepting Sewer high level commences in Stoke's Croft, receiving the Horfield drainage, along Upper Maudlin Street, Frogmore Street, and College Street, to join the Clifton Low Level Main. Size 3′ × 2′ 6″, gradient 1 in 201·5, increasing at Frogmore Street to 1 in 19. The

low level commences at Baptist Mills, on the north side of the Froom, passing under Ashley Road, along Newfoundland Road, Milk Street, and Broadmead, under the Froom, along Nelson Street, to join the Avon Intercepting Sewer (below). Size 3′ 6″ × 3′ increasing to 4′ 6″ × 4′, gradient 1 in 600, area of district drained 1,288 acres, length of new sewers 8 miles. Completed 1866.

6. The Avon Intercepting Sewers serve the old City, and existing culverts were utilised in the scheme. [A]The Prince Street Sewer extends from the Stone Bridge, where it receives the low level Frome sewer, along Marsh Street and Prince Street, beneath the Floating Harbour, to a point opposite the old Goal, where it discharges into the tidal Avon. Size 5′ × 4′ 6″, gradient 1 in 890. This sewer runs for some distance paralled to an old sewer known as "Mylne's Culvert," which it relieves: the outlet of this culvert is also opposite the Gaol. [B]The Main Intercepting Sewer on the South Side of the Avon, extends from Totterdown Lock, in size 6′ diameter, along the side of the river, increasing at Bedminster Bridge to 6′ 6″, with a fall of 1 in 2,310, increasing opposite Mylne's Culvert, to 7′ 9″ diameter, and so to its discharge near Clift House. It intercepts all sewage on the South Side of the Avon, and is of sufficient size to receive that of the sewage on the North Side. Area of district drained 518 acres, length of sewers 8¼ miles. Completed in 1874.

The aggregate length of the main sewers is about 150 miles, and the cost was about £161,000.

The sewers take all storm water, which reaches them by way of trapped street gullies; they are without any external openings or means of ventilation, and the manholes are all closed down. In the low level sewers provision has been made for flushing from the Floating Harbour, and double tidal-valves are fixed at their outlet. These valves are self-acting, cast-iron, oval or circular, hung with chains, and bedded on indiarubber.

The sewers are so designed and constructed with regard to capacity, fall, and position, that they may be ultimately conveyed to one point, from which an outfall sewer may be continued to a suitable point lower down the river, or into the Severn Channel. As at present the sewage discharges at several points along the course of the Avon, it happens that in dry summers, when the fresh water scour is small, some deposit occurs at low water on the mud-banks, and causes considerable nuisance. This was very markedly the case during the dry summer of 1893.

As to this nuisance, it undoubtedly is a source of considerable discomfort during exceptional summers, as that of 1893, to persons living near, or crossing the ferries on the river: and it would be a matter of public convenience to have the sewage carried completely away from the City. At the same time it is not possible to point to any increase or excess of sickness in the City during the summer months due to this cause: indeed, the records of the third quarter of the year show that Bristol enjoyed a remarkable exemption from Diarrhœal diseases, which such conditions might be presumed to favour, and which were causing considerable fatality in other large centres of population.

Cleansing, Ashing, and Street Watering.

This work, which was carried out by contract up to 29th November, 1892, was on that date taken over by the Sanitary Committee, who have since carried out the work by their own staff, under the supervision of the Borough Engineer. The Refuse Destructor at Albert Road has continued to work satisfactorily.

Central Disinfecting Station.

As I pointed out in my Report for 1892, the growth of disinfecting work is continuous from year to year, as a result of the strict control of notified cases which the adoption of the Notification Act has permitted. The work has thus increased from a total of 3,919 articles disinfected in 1884, to the far larger figure of 46,959 disinfected in 1893. The Steam Disinfector (Washington Lyons' Patent) is fully equal to the work, but the receiving, sorting, and distributing rooms are totally inadequate, and require enlarging and re-modelling. It is remarkable that some danger of re-infection of clothing has not resulted owing to the lack of proper sorting space, during the great press of work caused by the Small-Pox outbreak: but very great care has been taken at all times, and with satisfactory results. The re-construction of this Disinfecting Station will form an important part of the general re-organisation of Isolation and Prevention work, connected with the building of the Permanent Isolation Hospitals.

Isolation Hospital Accommodation.

At the beginning of the year the duty of providing isolation for infectious cases in the city was undertaken, for non-pauper cases by the Sanitary Authority: for pauper cases by the Boards of Guardians respectively controlling the Unions of Bristol, Barton Regis and Bedminster.

The beds for such cases were thus provided :—

Sanitary Authority	40	Beds.
Bristol Union (Incorporation of the Poor)	60	,,
Barton Regis Union	40	,,
Bedminster Union	20	,,
Total	160	

On November 1st, however, the Barton Regis Guardians closed their wards against all cases of Small-Pox, at a time when the epidemic in Bristol and the District was steadily increasing. This ill-timed action caused considerable inconvenience both to the adjacent Districts and to Bristol, and indeed at one time was within measurable distance of inducing a calamitous extension of the disease, for had not your Committee succeeded by most decisive and immediate action in keeping your isolation accommodation always equal to the demands upon its space, several thousand cases would, there is little doubt, have resulted, in place of the 327 cases actually representing the extent of the epidemic.

The first step adopted to this end was to press into isolation service for the City, the Port Hospital Ship, and the Avonmouth Port Shore Hospital, providing respectively 25 and 16 beds for convalescent cases, which when fit, were conveyed thither in an ambulance deck-house on the steam launch. This accommodation proved invaluable. Meanwhile, the twenty beds of the Bedminster Guardians, which were on a site adjacent to the newly purchased Novers Hospital Site, were taken over, and additional beds expeditiously provided in wooden temporary buildings.

The disused House and Grounds at Clift House were at the same time adapted as a temporary Scarlet Fever Hospital, until more permanent arrangements, which are urgently needed, can be made.

By the above action, space was at all times made available for Small-Pox cases, and the epidemic was kept within manageable limits.

While provision for the City needs was thus at all times kept sufficient, so hardly were we pressed that we could at no time extend assistance to adjacent Districts similarly inconvenienced by the closure of the Barton Regis wards.

Amongst the first to apply for such assistance, were the Guardians of the Barton Regis Union itself, who requested your Authority to isolate for them a case which arose within their own walls, the care of which therefore they could not repudiate.

Looking to our own needs, and being only one week's possible influx of cases in hand with our accommodation, this application had to be refused: and unfortunately this case in the Barton Regis wards appears to have become the centre of a secondary outbreak in the wards of the Hospital, and, spreading thence, in the Eastville District of Stapleton.

This was, however, in a district beyond your Authority's control: and fortunately the Local Authority succeeded at length in securing some Hospital accommodation, in spite of much opposition, and thus got the outbreak under control.

This short sketch will serve to show how great is the need for the completion of permanent hospital buildings, such as your Authority has determined to erect upon the Novers Site of 13 acres, already purchased.

The plans for 120 beds, administration, laundry and office blocks, have been already prepared and submitted to the Local Government Board after the usual local enquiry, and as soon as the sanction of the Board to the proposed loan of £43,000 is secured, the work can be proceeded with.

I trust in the next Annual Report to be able to record the erection of a substantial part of the new buildings.

VITAL AND MORTAL STATISTICS.

The estimated population of the Bristol Urban Sanitary District, for the middle of 1893, based upon the Census enumeration of April, 1891, is 225,028, the Acreage is 4,538 (Ordnance Calculation), with a density of 49·61 persons per acre.

The population of the City has, for the last few years, been considerably over-estimated, owing to the fact that the population has not increased at so great a rate during the last intercensal period (1881-1891) as it did during the previous intercensal period (1871-1881). The consequent error amounted in 1891 to as much as 10,199, and as a result the birth and mortality rates have for some years appeared lower than was actually the case. For example, whereas the recorded birth and death-rates for 1891 are 30·29 and 20·8 respectively, these rates calculated upon the incorrect estimate would have appeared to be 28·25 and 19·94.

All figures in this report have been revised upon the recent Census enumeration.

This table shows the acreage and number of persons per acre for each of the Registration Sub-Districts.

Table A.

Showing Population, Acreage, and Number of Persons per Acre (Density) in each of the Registration Sub-Districts of the Bristol Urban Sanitary District, at the Census of 1881, and for the middle of 1891 and 1893.

Registration Sub-Districts.	Acreage.	POPULATION.					
		Census, 1881.	1881, Density.	Estimated to middle of 1891 on recent Census	1891 Density.	Estimated to middle of 1893.	1893 Density.
St. Mary Redcliff ...	170	9,602	56·4	9,287	54·6	9,227	54·2
Castle Precincts ...	119	6,768	56·8	5,558	46·7	5,352	44·9
St. Paul	148	18,643	125·9	19,046	128·6	19,126	129·2
St. James	68	8,420	123·8	7,817	114·9	7,704	113·3
St. Augustine ...	250	14,066	56·2	13,788	55·1	13,734	54·9
Bedminster	992	37,741	38·0	45,812	46·1	47,366	47·7
Clifton	921	28,702	31·1	29,361	31·8	29,493	32·0
Ashley	434	19,106	44·0	24,190	55·7	25,205	58·1
St. Philip	744	50,108	67·3	51,650	69·6	51,909	69·7
Westbury	692	13,347	19·2	15,540	22·4	15,912	23·1
Bristol Urban Sanitary District } TOTAL	4,538*	206,503	45·5	222,049	48·93	225,028	49·61

* Ordnance Calculation.

Births.

The births registered in Bristol in 1893 were 6,788, of which 218 were returned as illegitimate.

The birth rate for the year was 30·14, a slight increase on the rate of last year 29·3: the rate has since 1881 shown an almost continuous decrease, interrupted by a slight rise in 1889, and again in 1891 (Table B). The rate for the 33 great towns in 1893 was 31·0.

The excess of births over deaths during the year 1893 *(natural increase of population)* is 2,547. The estimated *actual increase* from 1892 amounts to 1,554.

Marriages.

2,558 Marriages took place within the Borough of Bristol during 1893, viz., 955 in the Bristol Union, 1,259 in the Barton Regis Union, and 344 in the Bedminster Union divisions of the Borough. The annual rate per 1,000 living in thus 11·3, compared with 11·6 in 1891 and 1892.

Deaths.

4,241 Deaths were registered in the District during the 52 weeks ending 30th December, 1893, of which 69 or 1·6 per cent. were returned as deaths of illegitimate children. The general death rate for the year, uncorrected for age and sex distribution, is 18·83 per 1,000 living.

Infant Mortality.

Of the 4,241 Deaths, 959 were of infants under one year. The proportion of these deaths to every 1,000 births (Infant death rate) was 141·2.

This rate varied thus:—176·9 in St. James, 159·2 in St. Augustine, 149·5 in St. Paul, 144·9 in St. Philip, 143·8 in Castle Precincts, 141·2 in Bedminster, 127·5 in Westbury, 120·6 in Redcliff, 119·7 in Clifton, and 111·9 in Ashley.

In Table B will be seen the annual infant rates in Bristol for the past 17 years. During 1893 the infant mortality ranged in the 33 large towns from 269 in Preston, 241 in Blackburn, 223 in Burnley, and 220 in Leicester, to 156 in Derby and 141 in Huddersfield and **Bristol**.

Mortality at Ages between 1 and 60.

1,999 Deaths were returned corresponding to an annual rate of mortality per 1,000 living between these ages of 10·9. The rate for the 33 great towns between these ages was 11·7 in 1892, and 12·0 in 1893.

Mortality amongst Aged People.

1,283 Deaths of persons aged 60 and upwards were registered, whose ages averaged 72 years and 10 months. This number is somewhat more than last year, and the average age at death is 5 months higher. The rate of mortality amongst persons living at these ages was in Bristol 79·0, and for the 33 great towns was 78·9 in 1892 and 79·5 in 1893.

Table showing Diminution or Excess of Deaths in 1893, compared with Annual Deaths in 1883-92.

CORRECTED FOR INCREASE OF POPULATION.

Cause of Death.	Diminution in 1893.	Excess in 1893.
Small Pox	—	13
Measles	96	—
Scarlet Fever	26	—
Typhus	—	—
Influenza	—	47
Whooping Cough	30	—
Diphtheria	—	30
Enteric Fever	3	—
Diarrhœal Diseases	—	21
Cancer	—	34
Phthisis	33	—
Premature Birth	—	40
Diseases of Nervous System	—	108
Do. Circulatory System	—	58
Do. Respiratory System	22	—
Do. Urinary System	—	2
Childbirth and Puerperal Fever	—	3
Violence	8	—
All Other Causes	283	—
	501	356
Balance of Diminution or Excess	145	

This table shows, in summary form, the amount of life saved and the amount lost in the year 1893, as compared with the preceding decennium, under each of the more important headings in the list of causes.

The net gain in the year amounted to 145 lives, that is to say, had the death-rate in the year been equal to the average in the preceding decennium, 145 more persons would have died in Bristol than was actually the case.

As the Registrar-General has pointed out in the case of London, the excess shown under certain headings, such as Cancer, and Diseases of the Circulatory System, appears to be part of a general tendency to increase under these headings, which has been noticed for some years past. The decrease in mortality ascribed to respiratory Disease is probably in part due to the unusual climatic conditions.

The increase in Diphtheria as a cause of death, noticed last year, has unfortunately, been maintained this year. A similar tendency of this disease to increase, is shown generally in the large centres of population.

Of the principal Zymotic Diseases, excess is noticed in the case of Small-Pox, Diphtheria, and Diarrhœa, over the previous ten years' average, but diminution in the case of Measles, Scarlet Fever, Whooping Cough and Enteric Fever.

Diseases of the Respiratory System and Phthisis also show a satisfactory decrease upon the ten years' averages.

Vaccination—Pauperism.

Bristol Union.

I am indebted to J. J. Simpson, Esq., Clerk to the Guardians of the Bristol Incorporation, for the following information:—

Vaccination. The most recent available return as to Vaccination is that of 1892, from which it appears that the 1,550 children registered as born during that year, within the limits of the Bristol Incorporation, are accounted for as follows:—

Number successfully vaccinated	1,183	1,550
Insusceptible	4	
Died unvaccinated	179	
Postponed by Medical Certificate	6	
Removed to Districts, the Vaccination Officer of which has been duly apprised	21	
Cases left and not traceable ...	124	
In abeyance	33	

The percentage of children successfully vaccinated out of the total number of births is 76·32, as compared with 78·89 in the previous year, 1891, a falling off of about 1½ per cent.

Comparing these results with the latest available return for the whole of England and Wales—that for 1890—we find that the percentage of the successfully vaccinated was for that year in England and Wales, 78·0, and the percentage of deaths of unvaccinated children, 10·5. In the previous year (1889) the percentages were:—successfully vaccinated, 79·8: died unvaccinated, 10·0. Thus there was a falling off of 1·8 per cent. in 1890 of successful vaccination, compared with the previous year.

The most recent statement as to Vaccination in 1893 is obtained from the account of fees paid to the Vaccination Officer for registering certificates of successful vaccination received by him during the year. The number of certificates so received by him and registered in 1893, was 1,283: but this figure is subject to correction on account of children who, though registered as successfully vaccinated during the year, may have been born in 1892, or in some previous year.

The numbers ascertained in the same manner for previous years were as follow—1892—1,249: 1891—1,294: 1890—1,299.

Twenty-four persons were admitted to the Small-Pox Wards of the Infectious Diseases Hospital at the Workhouse between October, 1893, and February, 1894, viz:—

5 persons under 10 years of age.
19 persons over 10 years of age.

Of the former, the children, only 1 appeared to have been vaccinated. This child with two others recovered: the other 2 died.

Of the latter, the adults, (many of whom were over 20 years of age), none had been re-vaccinated: 1 had not been vaccinated, but the others appeared to have been vaccinated.

Only one of the adults died.

Pauperism. The cost of relief in the year to Michaelmas, 1893, was less than the cost in the year to Michaelmas, 1892, by £341, viz:—

Decrease in cost of maintaining	Indoor poor	£324
,, ,,	Outdoor poor	17

The lowest number of indoor poor, in any week in the year, was 876, and the highest number 1,011

The lowest number of outdoor poor, in any week in the year, was 1,693, and the highest number 1,947.

Barton Regis Union.

(From returns kindly supplied by C. H. Hunt, Esq., Clerk to the Guardians.)

The most recent complete Vaccination returns available are those for the year, from January 1st to December 31st, 1892, inclusive, and from 1st of January to 30th June, 1893, inclusive, from which it appears that the 8,948 children born during the 18 months, are accounted for as follows:—

Number successfully vaccinated	6,894	8,948
Insusceptible	42	
Died unvaccinated	825	
Postponed by Medical Certificate	372	
Removed to Districts, the Vaccination Officer of which has been duly apprised	43	
Cases left and not traceable ...	518	
In abeyance (31st Jan., 1893) ...	254	

The percentage of children successfully vaccinated out of the total number of births is 77·0, and the percentage of deaths of unvaccinated children to total births is 9·2.

The following are the particulars available in regard to vaccination, for the year ended the 29th September, 1893.

Number of successful primary vaccinations of persons:—

Under One Year.	One Year and Upwards.	Total.	Number of successful Re-vaccinations.
824	101	925	32

Pauperism. The cost of relief during the year to Lady-day, 1893, was as follows:—

In maintenance	£8,673	2s.	9¼d.
Out-relief (including non-resident and boarded Out Paupers) ...	£15,813	5s.	1½d.

PREVALENCE OF SICKNESS.

Small-Pox.

This disease, which had been entirely absent since the 29th June, 1891, was introduced into the City upon six distinct occasions, by tramps coming from the heavily-infected Midland and North country towns, between the dates of 1st February and 18th April, 1893.

These cases came to the Common Lodging-houses, and gave rise to a limited epidemic of 26 cases, lasting until May 24th.

Then followed a clear interval of 33 days, after which two cases were reported at the end of June: no extension occurred.

Again followed a clear interval of 34 days, when two further cases were reported early in August: no extension occurred.

These four cases were not, as far as could be ascertained, in causal relation to any previous City cases.

A six week's interval now occurred, and the disease was apparently eradicated.

In consulting the local disease returns, however, your Committee observed that through August and the early part of September cases of Small-Pox (which had by some mischance been introduced into the adjacent Local Board District of St. George, either independently by tramps, or, possibly, by some off-shoot from the spring tramp introductions into Bristol) were increasing somewhat rapidly, and it was anticipated that the accumulation of cases upon the boundary, and in a district having close business relations with the City, would result in a winter epidemic in the City, as in the 1887-88 epidemic, when cases similarly accumulating in the Local Board District of Stapleton, at the same time of year, preceded the serious outbreak of September in that year.

And so the event proved. After the six weeks' interval, the first case in the City was removed to Hospital on the 22nd September, 1893, and from this time to the end of the year 136 cases were reported. As the disease continued through the early months of 1894, a Special Report on the whole of the epidemic will be prepared and presented to your Committee.

The Tables appended show the general particulars as to vaccination and mortality of the cases occurring during 1893, compared with similar particulars of the 1887-1888 epidemic :—

1887 - 88.—SMALL-POX.

Table showing the Mortality of Small-Pox in relation to Vaccination, 327 cases occurring in Bristol from August, 1887, to July, 1888.

Degree of Vaccination.	Under 15 years of age.				Above 15 years of age.			
	Total Cases.	Recovered.	Died.	Deaths per cent.	Total Cases.	Recovered.	Died.	Deaths per cent.
Unvaccinated or Doubtful ...	22	10*	12†	54·5	33	19	14	42·2
1 Vaccination Mark	13	13	0	—	67	60	7	10·4
2 Vaccination Marks ...	19	19	0	—	78	77	1	1·2
3 Vaccination Marks ...	14	14	0	—	39	39	0	—
4 or more Vaccination Marks	18	18	0	—	24	21	3‡	12·5
	86	74	12	—	241	216	25	10·3

* One of these cases was Vaccinated in 4 places after admission.

† One of these deaths was of an infant 10 weeks old, not Vaccinated until one week before admission, when it had already contracted the disease.

‡ One of these patients gave birth to a child prematurely.

1893.—SMALL-POX.

Table showing the mortality of Small-Pox in relation to Vaccination in 164 cases occurring in Bristol during 1893.

Recoveries 145. Deaths 19.

Degree of Vaccination.	Under 15 years of age.				Above 15 years of age.			
	Total Cases.	Recovered.	Died.	Deaths per cent.	Total Cases.	Recovered.	Died.	Deaths per cent.
Unvaccinated or Doubtful ...	15	9*	6	40	11	7	5	45·4
1 Vaccination Mark	2	2	0	—	25	25	0	0
2 Vaccination Marks ...	5	5	0	—	33	29	4	12·1
3 Vaccination Marks ...	2	2	0	—	41	38	3	7·3
4 or more Vaccination Marks	3	3	0	---	27	26	1	3·7
	27	21	6	—	137	124	13	9·4

* One of these cases was unvaccinated on contracting Small-Pox, and was Vaccinated on 5th day of infection, 9 days before rash, mild case, 40 papules in all. A second case was unvaccinated on contracting Small-Pox, Vaccinated on 5th day of infection, 9 days before rash, mild case, 2 papules in all.

Revaccination—Seven of the above, all over 15 years of age, were stated to have been revaccinated, but none recently, of these one case was fatal, she stated she had been revaccinated 20 years before, but no marks of any kind could be discerned. Another case, revaccinated 38 years ago, was also severe, but recovered. The others were mild attacks.

The doubtful cases were 6, all over 15, of whom 4 died, and none of them had any discernible marks.

Cholera —Choleraic Diarrhœa.

No case of Cholera was notified during the year, and only one case of Choleraic Diarrhœa, occurring in a woman shortly after childbirth.

Two other cases of very acute Diarrhœa were kindly notified by the Medical Attendants, and were visited and watched: both recovered, and there appeared to be no reason to suspect that they were related to Asiatic Cholera.

The third quarter of the year in Bristol showed, indeed, in contradistinction to the experience of many other large towns, no unusual prevalence of Diarrhœal Diseases: thus, a large increase in the mortality from Diarrhœa was observed during the quarter over almost the entire Country, very high death rates being recorded therefrom in some of the large English Towns, and especially among those situated in the North, the death-rate from this disease in Burnley being 6·4, in Blackburn 6·9, in Hull 8·4, and in Preston 9·4 per 1,000 persons living: and the average Diarrhœal mortality for the 33 towns being 3·5, while in Bristol the rate was only 1·2.

The absence of any unusual Diarrhœal mortality was the more satisfactory, as Diarrhœal prevalence is largely an index of local susceptibility to Cholera invasion, and the disease not only threatened, but actually gained some footing in more than one of the north eastern towns, during the Autumn of 1893. (For particulars see Port Report of Medical Officer of Health for Bristol, 1893.) The limited prevalence of Enteric Fever in Bristol during the year, and during this quarter in particular, points in the same direction.

Diarrhœa.—Infantile Diarrhœa.

The number of deaths returned as due to Diarrhœal Diseases during the year was 124, of which 80 were of infants under 1 year, 20 of children between 1 and 5, 1 of a child between 5 and 15, 7 of persons between 25 and 60, and 16 of persons aged 60 and upwards.

The figures for the year are somewhat higher than those for 1892 (99), and for 1891 (58), but are not in excess, as noted above, when compared with the unusual prevalence of Diarrhœa in many parts of England.

The deaths by quarters occurred thus:

1st Quarter	17
2nd „	19
3rd „	61
4th „	27

Diphtheria, Membranous Croup.

During the 52 weeks of 1893, 111 cases were notified as Diphtheria, and 31 as Membranous Croup, a total of 142 under these two headings, as compared with 107 during the previous year.

The number of deaths returned from both causes was 53, compared with 38 and 16 during the two previous years. The local incidence of this disease, as well as the case mortality in the sub-districts in the City are shown in the following table:—

DIPHTHERIA, MEMBRANOUS CROUP.

Sub-Districts	Redcliff.	Castle Precincts	St. Paul.	St. James.	St. Augustine	Bedminster.	Clifton.	Ashley.	St. Philip.	Westbury.	Public Inst.	Bristol—City.
Population ...	9,227	5,352	19,126	7,704	13,731	47,366	29,493	25,205	51,909	15,912		225,028
Cases notified	4	2	4	5	4	45	15	15	26	19	2	141
Incidence rate of attacks per 1000 population	·43	·37	·20	·64	·29	·95	·50	·59	·50	·62	—	·62
Deaths ...	2	0	2	5	1	20	3	3	13	1	3	53
Percentage of deaths to cases (case mortality).	50	0	50	100	25	44·4	20	20	50	5·2	—	37·5

From this table it appears that 53 deaths occurred amongst 141 notified cases in the whole City, giving a case mortality of 37·5 per cent, and a Diphtheria death rate of ·23 per 1,000 living. The number of deaths in this year, shows a further rise over the Diphtheria mortality of last year, which corresponded to a rate of ·16, and this is considerably in excess of the average rate for the past 10 years, which was ·09.

It compares, however, favourably with the rate in the 33 great towns for 1893, which was 0·43.

The number of deaths returned as due to Diphtheria, in Bristol during the thirteen years 1881—93, are here shown: together with the death rate from this cause for the same series of years in Bristol and in the 33 great towns:—

·	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893
No. of Deaths	10	8	13	19	25	28	23	26	15	16	16	38	53
Population	206,503	208,007	209,522	211,048	212,586	214,134	215,694	217,266	218,848	220,442	222,049	223,592	225,146
Annual death rate per 1000 living ...	0·04	0·03	0·06	0·09	0·11	0·13	0·10	0·11	0·06	0·07	0·07	0·16	0·23
33 Great Towns	0·14	0·10	0·16	0·17	0·17	0·16	0·18	0·21	0·26	0·24	0·21	0·27	0·43

The tendency shown by Diphtheria of late years to increase as a cause of sickness and mortality in the large Urban Districts of England and Wales, is unfortunately now shared by Bristol. The notified cases, which rose from 70 in 1891 to 106 in 1892, showed a further increase during the year under notice, to 141 : and the deaths, which numbered 16 in 1891, rose to 38 in 1892 and to 53 in the year under notice. The heaviest incidence of the disease fell this year again upon the sub-district of Bedminster, in which the heavy case mortality of 44·4 per cent was recorded, the case mortality for the whole City rose from 35·8 per cent in 1892 to 37·5 per cent. Westbury shows, as noticed in previous years, a heavy incidence rate (·62 per 1,000 living) but a low case mortality (5·2). The persistence of this condition appears to depend to some extent upon a looseness in the use of the term Diphtheria, and its application, as a convenient term, to certain cases of throat illness not necessarily nor usually fatal.

The somewhat large number of 40 houses, in which Diphtheria occurred, were found to have foul or defective closets or drains, and these conditions were duly rectified No widespread outbreak traceable to any common cause, school association, or other conditions occurred during the year, and the cases were distributed through the months as follows:—

	Jan.	Feb.	Mar.	Apl.	May.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Cases.	6	12	9	11	13	16	12	9	8	17	14	14
Deaths.-	6	4	6	4	3	4	3	4	4	8	7	

Erysipelas.

During the year 230 cases of Erysipelas were notified and 11 deaths: compared with 193 cases and 21 deaths in 1892.

The enquiries made into these cases have resulted in the discovery of 30 houses where various sanitary defects required attention: but I am unable to attach any special value to the notification of Erysipelas, and consider that it might conveniently be omitted from the list of notifiable diseases.

Scarlet Fever or Scarlatina.

The number of cases of this disease notified during the 52 weeks of 1893 was 1,245, compared with 1,442 cases in 1892 and with 888 cases in 1891: and the number of deaths returned was 35, compared with 47 in 1892 and with 37 in 1891.

The percentage of deaths to cases in the whole City was 2·8, which compares favourably with the case mortality in 1892 of 3·2, and in 1891 of 4·1. It is thus seen that a considerable reduction in mortality has accompanied the decline of the epidemic. The distribution of attacks by age was as follows:—

Under 5 years	422
5-10 „	455
10-20 „	219
Over 20 „	149
	1,245

This table shows the incidence rate of the disease upon the registration sub-districts, and the percentage of deaths to cases in each sub-district and in the whole City.

Scarlet Fever.

Sub-Districts	Redcliff.	CastlePrecincts	St. Paul.	St. James.	St. Augustine	Bedminster.	Clifton.	Ashley.	St. Philip.	Westbury.	Public Inst.	City.
Population ...	9,227	5,352	19,126	7,704	13,734	47,366	29,493	25,205	51,909	15,912		225,028
Cases Notified	23	31	110	27	59	168	114	231	418	64		1245
Incidence rate of attacks per 1000 population	2·4	5·7	5·7	3·5	4·2	3·5	3·8	9·1	8·0	3·9		5·5
Deaths ...	2	0	3	0	2	5	1	2	20	0		35
Percentage of deaths to cases (case mortality).	8·6	...	2·7	...	3·3	2·9	·87	·86	4·7	...	...	2·8

The heaviest incidence of the disease was upon the sub-districts of Ashley and St. Philip: the heaviest case mortality occurred in Redcliff (8·6) and in St. Philip (4·7). Two cases only occurred in the common lodging houses.

During the first quarter of the year the disease was most prevalent in Bedminster, Ashley, and St. Philip. In the second quarter Clifton shared with these districts some marked prevalence. In the last month of the third quarter the disease showed a marked tendency to increase in the City generally, and especially in the sub-districts of St. Philip, Bedminster, St. Paul, and Ashley. The greatest rise in the number of cases notified was noticed during October when all the registration sub-districts except Castle Precincts, St. James, and Redcliff shared very markedly in the general rise.

During the fourth quarter the disease was most prevalent in St. Philip, Ashley, Clifton, Bedminster, Westbury, St. Paul, and St. Augustine: but towards the end of the year the decline in notified cases was very marked in most of the sub-districts, and especially in St. Philip.

The notification figures for the four quarters are as follow:—

1st quarter	244
2nd ,, ...	245
3rd ,, ...	342
4th ,, ...	434
Total	1,265

No widespread extension has been traced during the year to schools, or to milk contamination: but in every case notified the attendance of school children from infected houses has been controlled until after recovery of the patient and disinfection of the premises.

The number of cases of Scarlet Fever isolated in the hospitals during the year has been 68, of which 42 were isolated in St. Philip's hospital, and 18 were treated during the acute stage in the Avonmouth Port hospital, 10 of which were transferred during convalescence to the temporary premises at Clift House, fitted up in November by your Committee's instructions for the reception of Scarlet Fever, and 8 other cases, 18 in all, were isolated in these premises.

There is every indication that the wide prevalence of Scarlet Fever is subsiding, and I trust that before it again threatens to become epidemic we shall have the new City hospitals on Novers Hill in good working order.

Typhus Fever.

No case of Typhus Fever was reported in the City during the year. The last known cases of this disease occurred in the winter of 1889-90, the disease was strictly localised to a small group of houses, and resulted in 5 cases and 1 death. *(See Report for 1889).*

Enteric Fever.

During the year 123 cases were Notified as Enteric Fever of which 1 was subsequently withdrawn, leaving 122 cases as the corrected number for the year.

The number of cases shows a decrease upon the previous year, though the deaths are somewhat in excess of that year, as will be seen from the following table:—

	Cases notified.	Deaths.
1890	122	33
1891	116	23
1892	135	18
1893	122	26

The yearly deaths for the past 10 years in the City have averaged 27·7, so that the year's mortality is slightly below the average, though considerably in excess of the low years 1892 and 1885, when only 18 and 16 deaths were respectively returned.

The prevalence and fatality of the disease in each quarter of the year is shown here.

	Cases.	Deaths.
1st Quarter	33	11
2nd Quarter	32	8
3rd Quarter	39	5
4th Quarter	18	2
	122	26

This table shows the cases of Enteric Fever notified in each sub-district, as well as the attack rate per 1,000 population, and the case mortality:—

Enteric Fever.

Sub-Districts	Redcliff.	Castle. Precincts.	St. Paul.	St. James.	St. Augustine.	Bedminster.	Clifton.	Ashley.	St. Philip.	Westbury.	Publ. Inst.	Bristol City.
Population ...	9,227	5,352	19,126	7,704	13,734	47,366	29,493	25,205	51,909	15,912		225,028
Cases notified	1	1	8	4	2	24	25	5	29	10	13	122
Incidence rate of attacks per 1000 population ...	·10	·18	·41	·51	·14	·50	·84	·19	·55	·62	...	·54
Deaths ...	1	1	0	1	0	4	6	0	4	3	6	26
Percentage of deaths to cases (case mortality.)	100	100	0	25	0	16·6	24·0	0	13·7	33·3	...	21·3

Enteric Fever is at present admitted into the Public Institutions and into the Guardians' Hospitals for treatment, and 47 cases were nursed in these institutions during the year. There are at present no beds available for this disease in your Authority's hospitals, a deficiency shortly to be made good in the new hospitals.

The enquiries made into the sanitary condition of houses in which Enteric Fever appeared, disclosed 35 in which the drainage or other sanitary arrangements were defective and received attention.

As noticed in previous years, polluted water played but a very small part in the dissemination of the disease. In four cases pump or well water was in use at the affected houses: the water from these was analysed, and found to be impure, and steps were taken to secure the provision of a pure supply.

The cases occurring in the city were, as a whole, isolated ones, and no wide-spread epidemic at any time took place. In four instances, however, multiple attacks occurred in the same house, affecting 5, 5, 4, and 4 inmates respectively, the water supply in one of these instances was impure: and in four other instances two cases occurred in the same house sequentially.

In fourteen instances, seven of which occurred during the the third quarter (holiday period), persons sickened shortly after returning home from visits, during which, it appeared reasonable to the Medical Attendant to suppose, they had contracted the disease. Of these fourteen cases nine were introduced into Clifton or Westbury, two into Ashley, two into St. Philip, and one into St. Augustine. These introductions came from such widely separated places as New York, London, Cardiff, Chesterfield, (a nurse who attended four cases), Cornwall, North Devon (two cases), Dublin, Somerset, Scotland, and Dartmoor.

The heaviest incidence rate was upon the sub-districts of Clifton (·84 per 1,000) and Westbury (·62 per 1,000): the rates for St. Philip, Bedminster and St. James (·55, ·50 and ·51 respectively) nearly equalled that for the whole City (·54); and Redcliff showed the smallest incidence (·10).

The case mortality was heavy in both Westbury and Clifton (33·3 and 24·0 per cent respectively): while the case mortality in St. Philip (13·7) and in Bedminster (16·6) was in each instance below that for the City generally (21·3).

Measles.

The deaths from measles numbered 25 compared with 105 last year and 239 during 1891, the last epidemic year. The heaviest mortality from this disease occurred in the sub-districts of Bedminster (8) and St. Philip (4).

Of the 25 deaths, 23 were of Children under 5.

It is a vexed question whether Measles should or should not be included amongst Notifiable Diseases. On the one hand its early infectivity and rapid spread appear to preclude the possibility of effectually controlling its epidemic prevalence, by the usual means of Hospital Isolation and Disinfection, while the enormous bulk of cases during any wide prevalence would render complete Hospital isolation of all cases impossible without very ample ward accommodation. On the other hand Measles is undoubtedly a regularly recurring cause of immense mortality, much of which might be prevented by careful nursing during the stage of convalescence: and, if many deaths are in this way preventable, it would appear to be a public duty to strive to do so.

On the whole, and with present available means of Isolation, the control of school attendance would appear to be the most hopeful method of procedure, and in this way heads of schools can most effectually further the efforts of your Authority by giving information of cases, and of families known to be affected. The time for Notification does not seem to be ripe in this City, until our Hospital accommodation is actually more commensurate with our requirements.

Whooping Cough.

The deaths from Whooping Cough numbered 80, compared with 154 in 1892, 53 in 1891, and 201 in 1890.

Of the 80 deaths, 77 were of children under 5.

The heaviest mortality (47) occurred during the last quarter of the year.

The disease was most fatal in St. Philip and Bedminster. The mortality in this disease is largely due, as in the case of Measles, to the want of care exercised during the course of the disease, to avoid exposure to inclement wind and weather.

Influenza.

This disease, which was very prevalent in the City at the end of the year 1891, causing 51 deaths, continued in excess during the first quarter of 1892, during which 45 deaths were returned from this cause, and then gradually diminished, the deaths during the remaining three quarters of the year numbering 7, 3, and 1 respectively.

In 1893, while there has been no extreme recrudescence of the disease, such as in recent epidemics so greatly augmented the death returns, Influenza is yet accredited with some mortality in each of the four quarters, the figures being 12, 16, 2 and 38 respectively.

The number of deaths returned were, in Bedminster (22), Westbury (10), St. Augustine (8), St. Paul and St. Philip (6 each), Ashley (5), Clifton (4), Castle Precincts (3), St. James (1); while Redcliff, for the third year in succession shows no fatality from this cause

Phthisis (Pulmonary Consumption).

The deaths from this disease form no inconsiderable proportion of the total deaths, and from year to year nearly approach the fatality of the seven principal Zymotics grouped together :—

	1887.	1888.	1889.	1890.	1891.	1892.	1893.
Phthisis	332	333	326	413	382	372	363
Seven Principal Zymotics } ...	664	292	500	482	426	461	363

There appears to be no valid reason for the continued existence of this fatal scourge in anything like its present proportions, if to the medical treatment of its symptoms and results, were added some intelligent preventive treatment on the part of the patient.

Isolation in hospital, with the precautions as to exposure and disinfection, are certainly not applicable in the circumstances of Pulmonary Consumption, but *Notification* of the disease might reasonably tend towards the universal adoption of such precautions as are indicated below, and would ensure the periodical and thorough disinfection of infected rooms and houses, especially after death, a point of no little importance in the social history of the disease.

Rules for Preventing the Spread of Consumption.

Pulmonary Tuberculosis (Consumption) is directly communicated from one person to another. The germ of the disease exists in the expectoration of persons afflicted with it.

Tuberculosis is commonly produced in the lungs (which are the organs most frequently affected) by breathing air in which living germs are suspended as dust.

The material, which is coughed up sometimes in large quantities by persons suffering from Consumption, contains these germs often in enormous numbers. This material when expectorated frequently lodges in places where it dries, as in the street, on floors, carpets, handkerchiefs, &c. After drying in one way or another it is very apt to become pulverised and float in the air as dust. By observing the following rules the danger of catching the disease will be reduced to a minimum:—

1.—Do not permit persons suspected to have Consumption to spit on the floor, or on clothes, unless the latter be immediately burnt. The spittle of persons suspected to have Consumption should be caught in earthen or glass dishes containing the following solution:—

Corrosive sublimate	1 part.
Water	1,000 parts.

2.—Do not sleep in a room occupied by a person suspected of having Consumption. The living rooms of a consumptive patient should have as little furniture as practicable—hangings should be especially avoided. The use of carpets, rugs, &c., ought always to be avoided.

3.—Do not fail to wash thoroughly the eating utensils of a person suspected of having Consumption, as soon after eating as possible, using boiling water for the purpose.

4.—Do not mingle the unwashed clothing of consumptive patients with similar clothing of other persons.

5.—Do not fail to catch the bowel discharges of consumptive patients with diarrhœa, in a vessel containing Corrosive sublimate 1 part, water 1,000 parts.

6.—Do not fail to consult the family physician concerning the social relations of persons suffering from suspected Consumption.

7.—Do not permit mothers suspected of Consumption to nurse their offspring.

8.—Household pets (animals or birds) are quite susceptible to Tuberculosis; therefore do not expose them to persons afflicted with Consumption: also do not keep, but destroy at once, all household pets suspected of having Consumption, otherwise they may give it to human beings.

9.—Do not fail to cleanse thoroughly the floors, walls, and ceilings of the living and sleeping rooms of persons suffering from Consumption, at least once in two weeks.

10.—It is advisable to boil all cow's milk thoroughly before use, especially by children, as it is very probable that Tubercle in children is frequently caused by the use of milk from consumptive cows.

11.—The lungs should be protected from injury such as arises from damp and over-crowded dwellings, and from dusty occupations.

12.—The frequenting of public assemblies by persons suffering from Consumption is not advisable.

13.—Disinfection should be thoroughly and completely carried out in every house where a death from Consumption has occurred.

D. S. DAVIES, M.D., D.P.H.,

Medical Officer of Health

Table B. Showing Population, Births, Marriages, and Deaths, and Birth and Death Rates, in Bristol, for the 17 Years, 1877-1893. (All figures revised on 1891 Census.)

	Estimated Population.	Registered Births.	*Marriages in the District of the Bristol Union.	DEATHS.					ANNUAL RATES.			
				Total Deaths at all Ages.	Under 1 Year.	Over 1 and under 5.	Over 60.	In Public Institutions.	Birth Rate per 1000.	Death Rate per 1000.	Infantile Mortality to 1000 Births.	Zymotic Rate.
1877	202,950	7,295	1,199	4,415	1,120	785	990	653	35·9	21·8	153·5	3·3
1878	206,419	7,236	1,159	4,409	1,145	605	1,121	631	35·1	21·4	158·2	2·0
1879	209,947	7,644	1,115	4,496	1,112	715	1,163	607	36·4	21·4	145·4	2·2
1880	213,563	7,193	1,195	4,276	1,040	759	1,036	661	33·7	20·0	144·5	3·0
1881	Census 206,503	7,121	1,103	4,050	900	608	1,084	650	31·4	19·6	126·3	2·2
1882	208,007	6,935	1,107	4,019	988	589	1,045	624	33·3	19·3	142·0	2·3
1883	209,522	6,844	1,073	3,795	917	405	1,057	608	32·6	18·1	133·9	1·1
1884	211,048	6,888	1,090	4,023	1,001	538	1,061	653	32·6	19·0	145·3	1·8
1885	212,586	6,786	974	4,281	1,052	639	1,134	629	31·9	20·1	155·0	2·2
1886	214,134	6,724	949	4,253	1,002	619	1,132	694	31·4	19·8	149·1	2·2
1887	215,694	6,619	956	4,542	996	796	1,244	680	30·6	21·0	150·4	3·0
1888	217,266	6,608	981	3,816	824	432	1,138	710	30·4	17·5	124·6	1·3
1889	218,848	6,694	932	4,021	976	595	1,062	660	30·5	18·3	145·8	2·2
1890	220,442	6 634	1,033	4,532	991	597	1,265	730	30·0	20·5	149·4	2·1
1891	222,049	6,725	937	4,631	972	603	1,371	815	30·3	20·8	144·5	1·7
1892	223,592	6,563	973	4,331	953	634	1,197	776	29·3	19·3	145·2	2·0
1893	**225,028**	**6,788**	**955**	**4,241**	**959**	**411**	**1.283**	**851**	**30·1**	**18·8**	**141·2**	**1·6**

* This includes the Registration Sub-Districts of St. Mary Redcliff, Castle Precincts, St. Paul, St. James, and St. Augustine only.

Table C. Showing Number of Deaths from Zymotic Diseases in Bristol, during the 18 years, 1876—1893.

	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893
Small Pox ...	23	...	...	...	1	...	...	...	...	10	8	13	26	...	...	1†	...	20‡
Diphtheria ...	11	4	5	4	6	10	8	13	19	25	28	23	26	15	16	16	38	53
Erysipelas ..	14	17	12	13	10	18	14	10	11	10	11	10	21	16	9	12	21	11
Scarlet Fever ...	286	45	36	92	244	153	75	33	37	21	89	217	45	26	40	37	47	35
Typhus	5	31	2	...	...	7	10	1	2	...	...	...	...	...	1	...	...	...
Enteric Fever ...	84	101	89	42	39	52	38	29	40	16	29	23	28	38	33	23	18	26
Puerperal Fever* ...	..	...	...	...	...	...	...	..	18	12	8	9	17	11	12	7	25	16
Measles	77	133	53	74	73	120	54	33	46	159	101	147	61	185	92	239	105	25
Whooping Cough ...	47	239	66	174	95	38	196	38	99	149	101	124	38	105	201	53	154	80
Diarrhœa... ...	209	117	171	70	184	82	104	83	132	89	119	117	68	131	96	58	99	125

* Previous to 1884, Puerperal Fever was not separated in the Local returns from Puerperal Diseases generally.

† This death occurred in the Nover's Hill Hospital outside the City, and so did not appear in the General Returns.

‡ Of these deaths one occurred in the Nover's Hill Hospital, outside the City, and so did not appear in the General Returns.

D.

City of Bristol.

TABLE SHOWING DEATHS FROM SPECIFIED CAUSES AT ALL AGES AND AT SIX GROUPS OF AGES, DURING THE YEAR 1893.

Classes.	Causes of Death.	Deaths at certain Age Groups.						All Ages.			Rate per 1000 Living.
		0 to 1	1 to 5	5 to 15	15 to 25	25 to 60	60 upwards.	M.	F.	Total.	
	ALL CAUSES	959	411	193	204	1190	1284	2094	2147	4241	18·83
I.	Small Pox — Vaccinated	1	..	...	1	9	...	9	2	11	0·08
	Small Pox — Un-Vaccinated ...	1	2	1	1	2	...	4	3	7	
	Small Pox — No Statement ..	...	.	..	...	1	...	1	...	1	
	Scarlet Fever	2	25	5	2	1	...	23	12	35	0·1
	Diphtheria	1	22	11	...	1	...	17	18	35	0·1
	Membranous Croup	1	17	...	...	...	...	10	8	18	0·07
	Typhus Fever	...	...	...	...	...	...		...	...	
	Enteric or Typhoid Fever	...	1	3	16	6	...	15	11	26	0·09
	Continued Fever, Ill-defined Fever	...	...	...	...	...	...	...	...	...	
	Relapsing Fever	...	...	...		...	...	...	...	...	
	Puerperal Fever	...	..	...	2	14	...	...	16	16	
	Cholera (Asiatic)	...	...	...	...	..	...	...	...		
	Erysipelas	...	...	...	...	6	5	6	5	11	0·04
	Measles	10	13	2	...	...	...	14	11	25	0·09
	Whooping Cough	37	40	3	.	...	...	36	44	80	0·35
	Influenza	3	4	1	1	21	38	34	34	68	0·31
	Simple Cholera, Chol: Diarrhœa	2	.	...	...	1	...	1	2	3	0·5
	Diarrhœa, Dysentery	78	20	1	...	7	16	57	65	122	
	Venereal Affections	39	1	...	...	4	...	19	15	34	0·15
	Pyæmia	...	...	...	...	1	...	...	1	1	
	Cow Pox, Effects of Vaccination ..	...	...	...	...	...	..	...	..	...	
	Other Spec: Feb: or Zymotic Dis.	...	...	...	...	1	1	1	1	2	
II.	Parasitic Diseases	2	...	...	...	1	...	3	...	3	
III.	Dietic Diseases, Alcoholism . .	...	..	...	...	4	1	3	2	5	
IV.	Rheumatic Fever	..	1	1	2	3	1	4	4	8	
	Rickets	2	6	...		...	..	3	5	8	
	Cancer, Malignant Disease ...	.	...	...	3	92	77	59	113	172	0·7
	Tabes Mesenterica	15	2	...	...	...	...	6	11	17	
	Tubercular Meningitis, Hydrocephalus	15	21	18	3	...	.	33	24	57	
	Phthisis Pulmonalis	10	6	29	66	233	19	181	182	363	1·6
	Scrofula, Tuberculosis	13	10	8	8	13		23	29	52	
	Other Constitutional Diseases ...	2	4	7	5	23	16	27	30	57	
V.	Premature Birth	140	...	...	...	...	...	74	66	140	
	Congenital Malformations	24	...	...	...	..	...	9	15	24	
	Old Age	...	...	.	...	1	271	105	167	272	1·2
VI.	Inflam: of Brain and Membranes	20	13	9	3	12	7	35	29	64	
	Apoplexy, Paralysis	2	2	5	2	71	129	96	115	211	2·3
	Epilepsy	. .	1	2	3	16	9	15	16	31	
	Convulsions	117	21	1	.	...	..	66	73	139	
	Other Diseases of Nervous System	3	3	5	6	26	48	43	48	91	
	Diseases of Heart and Circulation	10	1	25	20	168	182	197	209	406	1·8
	Croup	1		...	...	...	...	1	.	1	3·6
	Bronchitis	86	62	5	9	94	205	203	258	461	
	Pneumonia	45	60	12	12	86	55	150	120	270	
	Other Respiratory Diseases ...	16	12	4	8	25	23	54	34	88	
	Dentition	13	8		...	...	...	12	9	21	1·0
	Dis: of Stomach and Intestines, Peritonitis	39	3	7	7	31	32	65	54	119	
	Cirrhosis and other Dis: of Liver	5	..	1	1	40	21	29	29	58	
	Other Diseases of Digestive System	14	3	2	4	5	14	20	22	42	
	Diseases of Urinary Organs ...	...	1	2	4	69	54	80	50	130	0·5
	Diseases of Reproductive Organs...	...	.	...	.	7	2	...	9	9	
	Other Local Diseases	5	2	1	1	24	5	13	25	38	
VII.	Accident, Negligence	5	19	17	11	48	31	85	46	131	0·6
	Suffocation	1	...		...	...	...	...	1	1	
	Homicide	...	..	...	...	2	...	1	1	2	
	Suicide	...	...	..	...	7	3	9	1	10	
	Execution	...	...	...	..	...	. .	...	...	...	
VIII.	Marasmus, Atrophy, Debility ..	149	4	5	1	4	2	94	71	165	1·0
	Other Ill-defined Causes	40	1	...	2	20	17	49	31	80	

Infectious Disease (Notification) Act, 1889.

Notifications received in each week of 1893.

(UNCORRECTED AS RECEIVED.)

Weeks.	TOTAL.	Small Pox.	Choleraic Diarrhœa.	Diphtheria.	Membranous Croup.	Erysipelas.	Scarlet Fever.	Typhus Fever.	Enteric Fever.	Continued Fever	Puerperal Fever.
1	33			1		5	20		6		1
2	37				1	3	28		4		1
3	29					5	24				
4	33			3		6	21		2		1
5	23			1	1	4	12		4		1
6	32	2		5		6	13		5		1
7	36			2	1	7	22		3		1
8	23	1		1	1	1	16		1		2
9	20			1		6	11		2		
10	20	1		1	1	1	14		2		
11	21	2		1	1	2	13		2		
12	37	2		2	1	5	27		1		
13	32	3		3		2	23		1		
14	25			2		3	19		1		
15	22	2			1	4	12		1		2
16	33	6		2	2	2	15		6		
17	19	1		1	1	1	11		4		
18	41	1		2	1	4	27		5	1	
19	20	3		2	1	2	11				1
20	32	2		4		1	20		3		1
21	22	1		1	1	2	14		3		
22	25			1	1	6	14		3		
23	30			3		3	21		2	1	
24	26			3		5	17		1		
25	43			4		4	31		2		2
26	48	2		4	1	6	33		2		
27	35			2	1	3	26		3		
28	32			4		2	23		2		1
29	42			1		4	34		3		
30	33			1		1	26		4		1
31	49	1		3	1	10	29		5		
32	35	1		2	2	4	20		6		
33	27			1			16		5	4	1
34	30			3		4	19		2		2
35	21			1		4	15		1		
36	39					6	30		1		2
37	44			3	1	8	29		3		
38	52	2		2	1	8	36		2		1
39	46	1		1	1	1	39		2		1
40	47	1		4		10	31				1
41	70	1		3		7	58		1		
42	65	4		5	1	6	46		3		
43	66	10		2	1	5	44		3		1
44	46	8		1	1	6	29		1		
45	49	7		6		2	32		1		1
46	62	11		3	2	7	37		1		1
47	51	8		1		6	33		1		2
48	58	13		1	1	8	34		1		
49	57	24		2	2	4	24		1		
50	56	16		1		11	27		1		
51	49	16		5		5	22		1		
52	39	13		3		2	17		3		1
	1963	166	1	111	31	230	1265		123	6	30

Infectious Disease (Notification Act,) 1889.

1893. Notifications received during each Quarter of 1893.

Table A. (UNCORRECTED, AS RECEIVED.)

NOTIFIABLE DISEASE.	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Totals of each Disease.
Small Pox	11	18	5	132	**166**
Choleraic Diarrhœa .	...	1	...	...	**1**
Diphtheria	21	29	24	37	**111**
Membranous Croup ...	7	9	7	8	**31**
Erysipelas	53	43	55	79	**230**
Scarlet Fever or Scarlatina	244	245	342	434	**1265**
Typhus Fever ...	...	...	...	...	...
Enteric or Typhoid Fever	33	33	39	18	**123**
Relapsing Fever ...	...	...	...	...	...
Continued Fever ...	...	2	4	...	**6**
Puerperal Fever ...	8	6	9	7	**30**
Totals in each Quarter...	**377**	**386**	**485**	**715**	**1963**

Table B. Notification and Deaths registered by Sub-Districts during the year 1893.

(CORRECTED.)

	Small Pox.		Choleraic Diarrhœa		Diphtheria,		Membranous Croup.		Erysipe'as		Scarlet Fever		TYPHUS.	ENTERIC TYPHOID		Relapsing.	Continued		PUERPERAL.		Total cases in each Sub-District.
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths		Cases	Deaths	Cases	Deaths	
St. Mary Redcliff	20	**3**			4	**2**			8		23	**2**		1	**1**				1		57
Castle Precincts	5				1		1		2	**1**	31			1	**1**				1	**1**	42
St. Paul	22	**2**			3	**1**	1	**1**	24		110	**3**		8			1		1		170
St. James	4				3	**3**	2	**2**	9		27			4	**1**						49
St. Augustine	8				3	**1**	1		4		59	**2**		2					3		80
Bedminster	31	**2**			32	**11**	13	**9**	63	**4**	168	**5**		24	**4**				10	**4**	341
Clifton	8	**1**			14	**3**	1		18	**1**	114	**1**		25	**6**		1		3	**1**	184
Ashley	11	**1**			13	**2**	2	**1**	20	**1**	231	**2**		5			4		3	**3**	289
St. Philip	55	**4**	1	**1**	20	**8**	6	**5**	70	**3**	418	**20**		29	**4**				8	**7**	607
Westbury	1	**6**			15	**1**	4		12		64			10	**3**						106
Admitted to Public Insts. from outside of Borough					2	**3**								13	**5**						15
Extra Municipal Insts. ..										**1**					**1**						
Total cases of each disease	165		1		110		31		230		1245			122			6		30		1940
Total deaths from each disease		**19**		**1**		**35**		**18**		**11**		**35**			**26**			**0**		**16**	161
Percentage of deaths to known cases	11·5		100		31·8		58·0		4·7		2·8			21·3			0		53·3		

This Table has been corrected as follows :—

One case notified as Small Pox, one notified as Diphtheria, twenty notified as Scarlet Fever, and one as Enteric Fever proved subsequently not to be cases of those diseases.

Table C.

NOTIFICATION.

Particulars as to removal and Disinfection in all Cases Notified during the Year 1893

	Small Pox.	Choleraic Diarrhea.	Diphtheria.	Membranous Croup.	Erysipelas.	Scarlatina or Scarlet Fever.	The Fevers known by the following names:—					TOTALS.
							Typhus.	Typhoid Enteric.	Relapsing	Continued.	Puerperal	
Cases removed to Hospital, Infirmary, or Children's Hospital	...	...	19	11	5	13	...	47	...	4	1	**100**
Cases removed to Sanitary Authority's Hospitals	110	...	...	...	...	68	..	..	...	..	...	**178**
Cases removed by Guardians	46	...	...	...	1	29	..	...	...	..	...	**76**
Total cases nursed at Home	9	1	91	20	224	1135	..	75	...	2	29	**1586**
Total cases known or notified ...	**165**	**1**	**110**	**31**	**230**	**1245**	..	**122**	...	**6**	**30**	**1940**
Cases in which disinfection of bedding, clothing, and rooms has been carried out, and necessary precautions taken under the supervision of District Inspector	165	1	98	29	26	1218	...	106	...	6	27	**1676**
Cases in which disinfection was carried out to the satisfaction of Medical Attendant or in which Disinfection was unnecessary	...	...	12	2	204	27	..	16	...	...	3	**264**

COMPARATIVE TABLE—Showing the Estimated Population, Density, Birth-rate, Death-rate, Zymotic-rate, Fever Death Rate, Diarrhœa Death Rate, and Infantile Death Rate of the TWELVE LARGEST TOWNS OF ENGLAND AND WALES (those having a population of over 200,000); also of EDINBURGH, GLASGOW, DUBLIN, and CARDIFF, for the Year 1893, compared with the same particulars and rates for the group of 33 large towns. *From the Registrar General's Return.*

	Estimated Population, middle of 1893.*	Persons to an acre.	Birth-rate.	Death-rate.	Zymotic-rate.	Fever Death-rate.	Diarrhœa Death-rate.	Deaths under 1 year to 1000 Births.
33 Large Towns	10,327,846	34·4	31·9	21·6	3·18	0·24	1·23	181
London	4,306,411	57·7	31·0	21·3	3·08	0·17	0·80	164
Manchester . .	515 598	39·9	33·6	24·9	3·72	0·25	1·74	203
Liverpool ...	510,514	97·9	36·0	27·3	3·90	0·53	1·69	211
Birmingham ...	487,891	38·4	32·7	22·0	3·04	0·20	1·66	198
Leeds	382,093	17·7	32·4	22·3	3·47	0·29	1·56	206
Sheffield... ...	333,922	17·0	34·8	22·3	3·52	0·27	1·87	191
West Ham ...	227,405	48·3	35·6	18·9	3·39	0·30	1·24	170
Bristol ...	**225,028**	**50·4**	**30·4**	**18·9**	**1·65**	**0·11**	**0·63**	**141**
Bradford ...	221,611	20·5	27·7	21·0	3·43	0·22	1·46	197
Nottingham ...	220,551	20·1	30·2	18·5	2·62	0·31	1·47	170
Hull	208,709	25·4	34·2	20·9	4·14	0·48	2·36	206
Salford	203,431	39·3	34·7	24·1	4·14	0·49	2·11	210
Edinburgh ...	267,261	—	27·9	19·8	2·40	0·14	0·63	—
Glasgow	677,883	58	34·2	23·4	4·45	0·20	0·90	158
Dublin	349,594	14·2	28·7	27·0	3·1	0·87	1·27	180
Cardiff	142,435	23·5	36·1	19·7	3·30	0·19	1·18	179

* These Populations are based on the 1891 Census returns.

Comparative Mortality in the Great Towns.

England and Wales, 1893.

The Birth-Rate in England and Wales in 1893 was 30·8 per 1,000 population, which was slightly higher than that in 1892, but 3·4 per cent. below the average in the 10 years, 1883-92.

The Death-Rate, which had been 19·5, 20·2, and 19·0 per 1,000 in the preceding 3 years, was 19·2 per 1,000, corresponding with the mean rate in the 10 years, 1883-92.

The Mortality of Infants under one year of age to 1,000 registered births, was 159, the mean proportion in the 10 years, 1883-92, having been 144. The death-rate among persons aged between 1 year and 60 years was 10·0 per 1,000 living at this group of ages, and that among persons aged 60 years and upwards was 71·1 per 1,000.

The Zymotic-Rate was 2·47 per 1,000 population compared with 1·90 and 2·00 per 1,000 in the preceding 2 years.

The deaths from **Diphtheria** were more numerous than in any previous year on record, and those from **Diarrhœa** than in any year since 1880, while the mortality from **Fever** and from **Small-Pox** was also unusually high. With regard to the mortality from the principal zymotic diseases in these 33 large towns during the year under notice, Measles showed the highest proportional fatality in Newcastle-on-Tyne, Blackburn, Bolton, and Preston: Scarlet Fever in Leicester, Liverpool, and Burnley: Diphtheria in West Ham, London, Croydon, and Cardiff: Whooping-cough in Birmingham, Bolton, Birkenhead, and West Ham: "Fever" in Salford, Liverpool, and Sunderland: and Diarrhœa in Leicester, Blackburn, Hull, and Preston. There were 732 deaths from Small Pox in the 33 large towns, during 1893. Of these, 206 occurred in London, 55 in West Ham, 115 in Bradford, 71 in Birmingham, 65 in Oldham, and 48 in Manchester.

In Bristol the birth rate for the year was 30·4, the death rate 18·9, and the rate from the principal zymotic diseases 1·65.

In view of the very high Diarrhœal mortality observed in this year, the comparative returns for the third quarter of the year (Diarrhœal quarter) are given more fully:—

In the third quarter of the year the general Urban Mortality was 20·6 per 1,000, and the Rural Mortality 16·5 per 1,000: being respectively 2·3 and 1·8 per 1,000 above the mean rates in the 10 preceding third quarters.

In the 33 great towns, the **Annual Death-Rate** was 21·8 per 1,000, ranging from the lowest, **16·1** in **Bristol,** 16·2 in Huddersfield and Halifax, and 16·7 in Croydon, to 27·3 in Sunderland, 28·0 in Blackburn, 28·4 in Liverpool, and 33·2 in Preston.

In 67 other large town districts the rate was 20·0 per 1,000, while in the remainder of England and Wales it was 17·2.

The Infant Mortality in the 33 great towns showed a mean proportion of 250 per 1,000 births, ranging from the lowest, **154** in **Bristol,** 171 in Huddersfield, and 189 in Plymouth, to 375 in Blackburn, 378 in Hull, and 476 in Preston.

In 67 other large town districts the Infant Mortality averaged 245 per 1,000 births, and in the remainder of the country, 179.

The mortality of persons between 1 and 60 was at the rate of 9·4 per 1,000 of the estimated population at these ages: the rate in the 33 great towns being 11·2, and varying from the lowest, **8·0** in **Bristol,** Croydon, and Halifax, to 13·6 in Preston, 13·8 in Blackburn, and 16·3 in Liverpool.

The Mortality of Persons aged 60 and upwards was at the annual rate of 56·1 per 1,000: in the 33 great towns it was 61·4, ranging from 43·1 in Norwich, to 94·2 in Bolton. In **Bristol** it was **58·4.**

The deaths ascribed to **Diarrhœa** in England and Wales numbered 21,020, corresponding to an annual rate of 2·81 per 1,000, or 1·24 above the average rate in the 10 preceding third quarters.

In the 33 great towns the rate was 3·48, ranging from **1·20** in **Bristol,** 1·53 in Huddersfield, and 1·54 in Halifax, to 6·27 in Wolverhampton, 6·40 in Burnley, 6·86 in Blackburn, 8·43 in Hull, and 9·36 in Preston. In 67 other large town districts it was 3·73, while in the remainder of England and Wales it was 2·12. Among districts and sub-districts in which the mortality ascribed to Diarrhœa showed excess, were Walsall, Great Grimsby, Chesterfield, Wigan, Warrington, Atherton, Darfield, Hartlepool, and Blyth.

Colonial and Foreign Cities.

In thirty-three European, American, and Australian cities, with an aggregate population of nearly twenty millions, the Death rate was 23·2 per 1,000. In these 33 cities the lowest death rates were 15·7 in Sydney, 16·3 in Brisbane, 17·5 in Christiania, 17·9 in San Francisco, 18·6 in Amsterdam, and 18·7 in Cincinnati: the rates in the other cities ranging upwards to 27·9 in Trieste, 28·1 in New Orleans, 29·1 in Breslau, 30·6 in St. Petersburg, and 35·9 in Moscow. In Paris the rate was 21·8, in Berlin 21·0, and in Vienna 24·0, against 21·3 in London. Small Pox caused 256 deaths in Paris, 203 in Trieste, 141 in Prague, 119 in Moscow, 112 in Rotterdam, and 100 in New York. The mortality from Measles was high in Sydney, Brisbane, Vienna, Venice, Brussels, Dresden, Munich, and Rome: from Scarlet Fever in Stockholm, Moscow, St. Petersburg, and Boston: from Diphtheria in Moscow, Stockholm, Milan, Copenhagen, and Paris, and in nearly all the German, Austrian, and American cities from which returns are received, and from "Fever" in Milan, Prague, Moscow, St. Petersburg, in most of the American cities, and in Rome, (where more than half the deaths caused by "Fever" were caused by Malarial Fever). The mortality from Diarrhœal Diseases (including Cholera) was excessive in all the 33 towns, except San Francisco, Prague, Trieste, and the Dutch towns.

Among the Indian cities the highest death rate was in Madras, viz., 40·9, the rates in Bombay and Calcutta being 28·1 and 25·9 respectively. Small Pox caused 203 deaths in Bombay, 20 in Madras, and 15 in Calcutta: and Measles caused 876 deaths in Madras and 287 in Bombay. The mortality from "Fever" was again excessive in all these towns.

In Cairo and Alexandria the death rates were respectively 50·9 and 36·3 per 1,000, these high rates being mainly attributable to excessive mortality from diarrhœal diseases, the rate from which was 15·5 per 1,000 in Cairo and 9·2 in Alexandria.

BRISTOL SANITARY AUTHORITY'S HOSPITALS.

REPORT FOR THE YEAR ENDING 30TH DECEMBER, 1893.

Small Pox Hospital.

Admitted during the year		110
Discharged Cured	27	110
Discharged Convalescent to Avonmouth* ...	39	
Died	13	
Remaining	31	

Scarlet Fever Hospital—St. Philip's Marsh.

Remaining from 1892	15	57
Admitted	42	
Discharged Cured	54	57
Died	3	

Clift House Temporary Scarlet Fever Hospital.

Admitted		18
Discharged Cured	8	18
Remaining	10	

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*Of these 23 were males taken to the Hospital Ship, and 16 females taken to the Shore Hospital, Avonmouth.

PART II.

Report of Inspector of Nuisances.

1893.

PUBLIC HEALTH DEPARTMENT,
40 PRINCE STREET,
February, 1894

To THE BRISTOL URBAN SANITARY COMMITTEE,

GENTLEMEN,

I again beg to submit a brief Report, with summaries, showing the nature and number of Nuisances abated during the past year, which, I trust, will receive your favourable consideration.

1,542 complaints and applications were received at the Office and duly attended to. Many of these were of a frivolous character, and in others there was no apparent reason for anyone to even imagine that a Nuisance existed on the premises to which attention had been drawn.

The necessary enquiries into the surroundings of Infectious Disease have, as usual, occupied much time, the cases notified having reached a total of 1,963, against 1,351 last year: these enquiries are frequently of a complicated nature, and require a considerable amount of tact on the part of the Inspector making them. The large number of 1,815 houses were disinfected during the year, against 1,351 last year; whilst the number of articles of bedding and clothing removed from these houses and disinfected in the Washington Lyons Steam Disinfector reached 46,915, against 36,722 last year. To cope with this increase the Disinfector has had for weeks together to be kept going day and night, relays of men being engaged thereon. I am glad to say that both machine and boiler have been equal to the occasion, and have done their work admirably.

The Informal Notices for the abatement of Nuisances, invariably served immediately on discovery, have been more than usually successful, for in only 80 cases was it found necessary to serve formal notices, against 131 last year. The Nuisance prosecutions were also very few, full particulars of which are appended in tabular form.

The Main Sewers, and the various courts, passages, &c., again received extra attention during the summer and autumn months, a large quantity of sulphate of iron being used in the Sewers, carbolic and other disinfecting powders used unsparingly in the courts, &c., and distributed gratuitously amongst the poor inhabitants.

Slaughter Houses.—Two new licenses have been granted during the year, and all Slaughter Houses have been constantly visited and were found in a generally clean condition. The position of many of them is very unsuitable, and I should much prefer Public Abattoirs.

Houses Let in Lodgings.—These now number 330, being an addition of 14 during the year. They are under constant supervision, and their condition shows a general improvement. The May Notices for the annual cleansing were, with few exceptions, promptly attended to, and in many cases the cleansing was done by the landlords without notice.

Dairies still continue to improve, and are now generally found in a thoroughly clean and good sanitary condition: the owners generally appear to be anxious to conform to the rules, and to spare no expense in adopting the latest improvements, either for sanitary or trade purposes: and no difficulty is now experienced by the Inspector in carrying out any necessary work.

Cowsheds are also under constant supervision, and are now generally found up to regulation mark, several of the more slovenly cow-keepers having given up the cow-keeping business.

Milkshops are a source of greater trouble than either Dairies or Cowsheds, as fresh shops are continually being opened, many of which are quite unsuitable for the purpose, and are consequently struck off the register, or not registered at all. In three cases milk was found in uncovered vessels in back kitchens, which were also used as wash-houses and for other purposes; and in another case the milk was found to be kept in a galvanized foot bath, needless to say that these parties were requested to discontinue the sale of milk. As will be seen from the annexed table, particular attention is paid to the sanitary arrangements of all registered Milkshops.

Factory and Workshops Act.—The work under this Act, commenced in 1892, still goes on, and, as will be seen by the annexed table, much good work has been done, and I am pleased to say that H.M. Inspector of Factories has stated that in this respect Bristol compares very favourably with other large towns. The appended tables, however, do not by any means show all the good effected, as it is impossible to say what influence the periodical visits paid to out-workers and domestic workshops have had. The work, as I stated last year, requires great tact and discrimination, but has, I am glad to say, been carried out with very little friction.

Common Lodging Houses have throughout the year been kept in their usual clean condition, all notices for cleaning were promptly complied with. In the early part of the year Small-pox was introduced to these houses on eight separate occasions, but the cases being promptly removed to hospital and disinfection carried out, there were only fourteen resulting cases.

Cholera Precautions.—Inspection of Courts, Poor Districts, etc. In accordance with your Committee's instructions, four men were selected from the staff of labourers and put on as working foremen, to visit the houses in the Courts and other poor-class houses in the City, they commenced the work in April and finished in October. During that time 13,490 visits were paid to such houses, and 720 nuisances discovered and reported to the Inspectors, who then visited, and, if found necessary, served notice for abatement. This, however, by no means represents all the good work secured by these men, as, wherever they found a dirty w.c. or privy, they showed the people by practical illustration how to clean them and keep them clean: particular attention being also given to dark corners, cellars, and such like places, where deposits of offensive rubbish and other matter were likely to accumulate, and if any such deposits were found, either large or small, they were at once cleared away, thus their duties were as much preventive as curative.

JAMES W. KIRLEY,

Chief Inspector of Nuisances.

Summary of Nuisances abated and Work done by the District Inspectors, and by the Special Inspectors in the Health Department.

1893.

STATEMENT PREPARED BY THE CHIEF INSPECTOR OF NUISANCES.

Number of Complaints received and attended to		1,542
Total number of visits and revisits in order to secure completion of work by the District Inspectors	34,964	43,515
Ditto ditto by the Special Inspectors	8,551	
Total number of Premises as to which Notices have been served, and enforcement secured in the various departments ...		4,890
Actual number of Nuisances so dealt with ..		8,403

Nuisances abated by the	District Inspectors	5,148
	Inspector of Slaughter Houses ...	75
	,, Common Lodging Houses	6
	,, Dairies, Milk Shops, &c.	1,058
	,, Houses let in Lodgings	1,527
	,, Factories and Workshops	568
	,, Bakehouses	36

PARTICULARS OF NUISANCES ABATED BY THE DISTRICT INSPECTORS—

House drains entirely relaid, trapped, and ventilated	370
House drains partially relaid, trapped, and ventilated	1,258
W.C.'s fitted with new pans, &c.	1,600
W.C.'s cleansed and amended	222
Dirty and dilapidated houses cleansed and repaired	397
Yards paved by owners	743
Offensive deposits removed	214
Cesspools abolished	35
Keeping of pigs and other animals prohibited	95
Overcrowding—cases of	39
Smoke nuisances	3
Offensive trades...	23
Other nuisances...	149
	5,163

Offensive Trades—	
Number visited	79
Water Supply—	
Polluted wells closed	26
Company's water supply provided to houses...	223
Smoke—	
Observations taken	149
Drain Testing—	
Number of times smoke test applied ...	997
Disinfection—	
Houses disinfected after infectious disease ...	1,815
Articles of bedding and clothing disinfected...	46,915
Articles burnt	44
Total number of infected articles dealt with	**... 46,959**

TABLE SHOWING NUMBER OF NUISANCES ABATED AND OTHER WORK DONE IN EACH YEAR SINCE 1884.

	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893
Number of Nuisances abated	1943	2167	2424	3101	3139	3672	5600	5101	7485	8403
Polluted Wells closed	21	15	16	17	18	48	35	14	14	26
Houses supplied with Co.'s Water ...	27	35	27	29	36	113	68	24	37	223
Houses disinfected ...	131	132	215	541	403	264	558	879	1351	1815
Articles of bedding, &c., disinfected ...	3919	5580	7727	19563	23233	14462	20523	31112	36722	46959

JAMES W. KIRLEY,

Chief Inspector of Nuisances.

INSPECTION OF MEAT AND FISH.

1893.

Summary for the Year.

No. of visits paid to		Slaughter Houses	806
,,	,,	Fish Markets	655
,,	,,	Wholesale Meat Markets, Union Street, Retail and other Markets	1,639
,,	,,	Meat and Fish Shops ...	2,956
,,	,,	Fish & Tripe Curing Premises	249
,,	,,	Cattle Market, Railway Stations, and Irish Boats ...	577
		Total number of visits...	6,882
		Revisits to see work carried out	130
		Total	7,012

Cattle, Pigs, Meat, Fish, and Fruit Destroyed.

Beasts		6
Sheep		21
Pigs		6
Calf		1
Meat from Butchers' premises ...	lbs.	75
Packages of Fish		511
,, Vegetables		15
,, Fruit		58
,, Rabbits		51
No. of Notices served during the year to abate nuisances, repair drains, provide proper tubs, and vessels, &c. All complied with ...		75

S. THOMAS,
Inspector of Meat and Fish.

Summary—Common Lodging House Inspection, and Work done during the Year.

1893.

No. of Houses on Register.	Registered Rooms contained	Certified to Accommodate.
47	234	1,066

The Rooms contain 83 Double Beds (Separated).
28 Single Beds for Women.
855 Single Beds for Men.

Notices given to secure Half-yearly Lime-washing	86	Notices complied with	670
Notice served to secure observation of Bye-Laws	1		
Notices to require necessary Repairs to Drains and Premises	5		
Notices served to require Application to be made for Registration	0		
Notices to give returns of lodgers admitted	578		
Total	670	Total	670

Total visits, inspecting as to fresh Applications, Measuring Rooms, serving Notices, affixing Room Tickets and copies of Bye-Laws, ordinary Inspections to secure observance of Bye-Laws, and to superintend repairs to Drains, &c., and making enquiries to see that Bye-Laws are complied with, and Night Visits, and making enquiries as to health of inmates, removal and disinfection 3285

S. DIMOND,
Inspector.

Dairies, Cowsheds, and Milkshops.

1893. SUMMARY FOR THE YEAR.

Total number of Dairies, Cowsheds, and Milkshops on Register at end of last year	1,053
Total number registered during the year ...	92
	1,145
Total given up the sale of Milk and struck off ...	126
,, now registered	**1,019**
,, inspections made	1,069
,, re-visits to see work in progress	1,050

Particulars of Work secured.

Drains entirely relaid	70
,, partially relaid	83
W.C.'s fitted with new pans and traps ...	143
,, cleansed and repaired	80
,, provided with flushing appliances and water	44
Sinks and yard gratings trapped	214
Yards paved	96
Yards and kitchens limewashed (Milkshops) ...	70
Cesspool abolished	1
Pigs removed	18
Cowsheds cleansed, limewashed, drained, and ventilated	45
Stables at Milkshops drained and ventilated ...	15
Leaky roofs repaired	6
Deposits of manure, &c., removed	91
Milkshops and Dairies cleansed and limewashed	69
New Dairies built outside dwelling-houses ...	13
Company's water laid on at Milkshops ...	9
Polluted well closed at Milkshops	1
Number of persons discontinued sale of Milk (Milk kept in Paraffin Stores, Marine Stores, Living rooms, &c.)	159
Cows removed to prevent overcrowding ...	8

Families removed to prevent overcrowding ...	2
Disinfections carried out	27
Smoke test applied to drains	51
Total number of Nuisances abated	1,058

E. J. CASELY,
Inspector of Dairies and Milkshops.

Regulation of Houses let in Lodgings or occupied by Members of more than one Family.

Number of Houses registered to end of 1892 ...	316
" " during the year 1893	14
Total number now on register...	330

Particulars of work secured—

Drains entirely relaid	25
" partially "	37
W.C.'s fitted with new pans and traps ...	41
" repaired and cleansed	19
" provided with flushing appliances and water	7
Sinks and yard gratings trapped	63
Court yards paved or paving repaired ...	57
Roofs repaired	44
Rooms cleansed, repaired, and coloured ...	790
Passages and Staircases ditto	399
Offensive deposits removed from Courtyards ...	22
Additional W.C. accommodation provided ...	0
Nuisances from overcrowding abated ...	23
Total number of Nuisances abated	1,527
Number of Inspections	892
" re-visits to see work in progress ...	2,515

H. J. KIRLEY,
Inspector of Houses Let in Lodgings.

Housing of the Working Classes Act, 1890.

Action taken under the above Act since the end of 1890.

Number of Houses reported as unfit for human habitation	136
Number of such houses either demolished or now remaining closed	70
Ditto made habitable and now occupied... ...	66
Other small houses were reported on as being obstructive, but the whole block of 18 was purchased and demolished, thus making the total number dealt with under the Act ...	154

Factory and Workshops Act.

Number of Workshops on register, December 31st, 1892, ...	134
Number registered during 1893	215
Total now on register...	349

Particulars of Work secured—

Drains relaid	27
„ repaired and amended	51
W.C.'s fitted with new pans and traps ...	101
„ repaired and cleansed...	31
„ fitted with flushing appliances and water	78
Sinks and yard gratings trapped	82
Floors and paving repaired	57
Roofs repaired	6
Work-rooms cleansed and limewashed ...	24
Passages and Staircases ditto	9
Work-rooms overcrowded—Nuisance abated ...	14
Better ventilation secured in work-rooms ...	53
Offensive deposits of trade refuse removed ...	11
Other Nuisances abated	8
Company's water provided to workshops ...	16
Total number of Nuisances abated...	568

Number of Inspections made	518
„ re-visits to see work in progress ...	2,377
„ particulars sent to H.M. Inspector...	303

J. F. COTTY,

Inspector of Workshops, &c.

Factory and Workshops Act.

(BAKEHOUSES).

Owing to the unusual demands made upon the Inspector's time by the duties incurred by the introduction of Small-pox into the Common Lodging-houses in the early part of the year, and in carrying out the work entailed by the Cholera Orders, and later by superintendence of the Port Hospitals used for the City Convalescent Small-pox Patients, but little time could be given to Bakehouse Inspection Work, but those thought most likely to require supervision were inspected, and since the end of the year the work has gone steadily on as usual, and the majority of them have been found in a satisfactory condition.

Thirty-six various defects in respect of neglect of lime-washing, defective drainage and dilapidations were found, and in dealing with these defects, 16 written and 20 verbal notices were given and complied with, and this work entailed 114 visits to see the work done.

Table I. **Table of Bakehouse Inspection for the Year.**

1893. With particulars of Condition, Contraventions, Action taken, and Result.

Total number of visits and inspections	...	424
Number of visits to Bakehouses, at which they were found in good order	111	
Ditto ditto ditto in fair and passable order	163	
Ditto ditto ditto not in satisfactory condition from one or more of the undermentioned causes	36	
Number of visits made in connection with Notices given, and seeing to proper compliance with same ...	114	
About 275 Bakehouses were in operation during the year	424	424

PARTICULARS OF DEFECTS.

Contraventions of lime-washing regulations, and want of proper cleansing	6	Informal Notices given for the removal of defects and complied with	20
Bakehouse premises with defective drains found thereon	28	Written Notices served and complied with ...	16
Repairs of floors and roofs	2	Formal Notices now running	0
	36		36

S. O. DIMOND,
Inspector.

Table II.

Showing Defects found and remedied in each year since Bakehouse Inspection was instituted.

Year.	Particulars.	Totals.
1884	Total contraventions in respect of cleansing, limewashing, defective drains, repairs, and defective ventilation.	342
1885	Ditto	244
1886	Ditto	96
1887	Ditto	132
1888	Ditto	69
1889	Ditto	65
1890	Ditto	89
1891	Ditto	80
1892	Ditto	71
1893	Ditto	36

S. O. DIMOND, *Inspector.*

Particulars of Cases taken before the Justices during the year.

1893.

DATE.	NAME.	OFFENCE.	RESULT.
Jan 17th	L. S. Allen	Order to close polluted well applied for	Order made with costs
,,	Lewis	Ditto ditto	Do.
Feb. 17th	J. Berry	For not removing manure in accordance with regulations	Fined 10/- and costs
Mar. 3rd	Rose Sage	For obstructing and preventing Inspector Lyons from removing bedding, &c., for disinfection after scarlet fever	Ordered to pay costs disinfection done in the meantime
Mar. 10th	S. Harding	For killing a bullock for trade purposes on unlicensed premises	Fined 40/- and costs
Mar. 22nd	E. J. Edwards	For transmitting and exposing certain articles of bedding, &c., infected with scarlet fever	Fined 40/- and costs
Mar. 29th	H. Packer	For having unsound meat on his premises	Fined £5 and costs
June 9th	N. Simmons	For interfering with and assaulting Mr. Perkins, Assistant Surveyor, whilst in the execution of his duty, and wilfully damaging certain drain pipes	Fined 50/- and costs
July 14th	W. Davey	For not removing manure in accordance with regulations	Fined 20/- and costs
Aug. 4th	S. Frampton	Non-compliance with the Bye-Laws relating to Houses Let in Lodgings	Fined 5/- and costs
,,	,,	For suffering a Nuisance to exist arising from a defective drain at 2 Joy Hill	Ordered to abate Nuisance and pay costs
Oct. 13th	Mrs. Parrish	For knowingly exposing her child in a carrier's van whilst suffering from scarlet fever	Fined 20/- without costs
Dec. 1st	S. Frampton	Non-compliance with Bye-Laws relating to Houses Let in Lodgings	Fined a daily penalty of 5/-, amounting to 40/- and costs
,,	,,	Suffering a Nuisance to exist at 1 and 2 South Green Street	Ordered to abate Nuisance at each house & to pay costs
,,	,,	To recover cost of relaying drain to abate a Nuisance at Joy Hill, done by the Authority, on non-compliance with the Magistrate's order of August the 4th	Ordered to pay the amount with costs

1893.

Baths and Wash Houses.

The four establishments at
The Weir,
The Mayor's Paddock, New Cut,
Jacob's Wells,
Rennison's,
return the following figures as the year's work :—

	No. of Bathers. Swimming Baths.	Private Baths.	Women Washing Clothes.
The Weir	27,575	45,625	27,509
The Mayor's Paddock, New Cut	26,872	30,197	22,721
Jacob's Wells (Baths only)	33,645	20,869	...
Rennison's (Swimming Bath only)	22,000*	...	...

* From July to October.

The City Analyst, Mr. F. Wallis Stoddart, has kindly supplied the following returns:—

"FOOD AND DRUGS ACT."

SUMMARY OF RETURNS FOR 1893.

Articles.	Analysed.	Condemned.
Milk	256	26
Skim Milk	2	1
Cream	1	...
Butter	42	3
Margarine	3	...
Cheese	6	...
Lard	29	17
Lardine	1	...
Bread...	2	...
Baking Powder ...	4	3
Self-raising Flour ...	3	...
Oatmeal	1	...
Pepper	32	...
Mustard	5	1
Coffee	4	...
Vinegar	9	2
Malt Vinegar ...	3	1
Confectionery ...	1	...
Total ...	404	54

F. WALLIS STODDART, *Public Analyst.*

PART III.

Meteorological Observations taken at Clifton College

(230 Feet above Mean Sea Level).

1.—TEMPERATURE AND PRESSURE.

1893.

January. The mean temperature was 35·98°, as against 39·15°, the average of the previous ten years: the month being thus much colder than usual. The first fortnight was extremely cold, the mean temperature being below the normal for the first 18 days, and even the maximum temperature was below the usual mean temperature for the first 15 days. The lowest temperature on the ground was 13° on the 3rd, and in the screen 17·70° on the 5th. There was frost on the ground on 24 days out of the 31.

February. The mean temperature of the month was 1·66° higher than usual, being 42·04°, against the normal value of 40·38°. The temperature was higher than usual for the first three weeks, except on the 5th, 6th, and 12th: but the last week was much colder than usual. The highest temperature reached was 56·3°, on the 19th and 20th, and the lowest on the ground 25° on the 25th. There was frost on the ground on 10 days.

March. The mean temperature was 47·16°, compared with the average value of 41·65°, thus showing an excess of 5·51°. In the very beginning of this month there commenced the long period of exceptionally warm weather, which will long make the year 1893 memorable meteorologically. The mean daily temperature fell below its normal value on only one day—the 19th. From the 18th of this month till the 11th of April the daily range of temperature was very great, amounting on the average to about 25° or more between day and night temperature. This was due to the prevalence of an anti-cyclonic system with easterly and northerly winds. The highest temperature recorded was 65·3° on the 29th and the lowest 25·6° on the 19th. There was frost on the ground on 10 days.

April. In this month the excess of temperature was more marked than in any other, amounting to nearly 7°—53·69° against 46·74°. This high temperature was most noticeable in the latter half of the month. The highest temperature recorded was 79·5° on the 21st, and the lowest 30·7° on the 14th. This latter was the only occasion on which the ground temperature fell as low as freezing point. As in March, the difference between day and night temperatures was very great, being as much as 29° on the 25th.

May. The mean temperature for this month was 57·50°, as compared with the normal value, 52·38°, thus showing an excess of 5·12°. The mean daily temperature *never* once fell below the normal. But the highest temperature recorded fell short of the maximum for April, being 78·3° on the 5th. The lowest temperature on the ground was 39·2° on the 8th, the lowest air temperature being 40·8° on the same day.

June. The mean temperature was 62·37°, as compared with the normal value of 58·98°. The mean daily temperature fell slightly below the normal on three days. The hottest period extended from the 13th till the 21st, and the highest temperature recorded was 86·1° on the 18th. The lowest ground temperature was 41·2° on the 1st.

July. The temperature this month was again above the average, though not to the same extent as in the preceding months. The mean temperature was 62·82°, being 1·78° above the normal. This excess was due mainly to the first nine days, the rest of the month being about the same as usual. With the rainy period, beginning on the 9th, the temperature became nearly normal, and at the same time the great difference between night and day temperatures disappeared, and from the 9th onwards the temperature was remarkably steady. The air temperature was highest on the 1st—83·1°—and lowest on the 2nd—47·8°.

August. This month again showed a much higher temperature than usual—64·78°, as compared with 60·24°, the normal August temperature. For the first week the conditions were the same as for the latter part of July; but a period of very hot weather began on the 8th and lasted till the 20th. During the last week the temperature was nearly normal. The highest temperature was 86·5° on the 15th, and the lowest air temperature 47·3° on the 28th.

September. The temperature during this month presented few features of interest. The mean temperature for the month was only a third of a degree higher than the normal. The highest temperature was 73·8° on the 6th, and the lowest temperature of air 42·2° on the 21st, and on the ground 36·7° on the 24th.

October. The mean temperature was 50·69°, being 1·84 above the average. It was about normal for the first 12 days, then there was a period of warm weather from the 13th till the 22nd. The variations from day to day in the latter part of the month were considerable, but, on the whole, this period was also warmer than usual. The highest temperature was 63·3° on the 21st, and the lowest on the ground 25° on the 31st. There was frost on the ground on the mornings of the 30th and 31st.

November. This month was much colder than usual, in fact, it was the coldest month of the year, with the exception of January. The mean temperature was 41·61°, as compared with the normal 44·23°, thus showing a defect of 2·62°. There were warmer periods about the 3rd, the 16th, and at the end of the month. The highest temperature recorded was 56·1° on the 16th, the lowest on the ground 24·2° on the 1st. There was frost on the ground on 17 days.

December. The mean temperature was 41·88°, being 2·3° above the average. The daily temperature never fell below the average from the 4th till the 28th, but for the first three and last two days of the month the weather was colder than usual. The highest temperature recorded in the shade was 55·8° on the 13th, and the lowest temperature on the ground 22·4° on the 2nd. There was frost on the ground on nine nights.

Rainfall at Clifton College, 1893.

MONTHLY SUMMARY.

Month.	Rainfall in Inches.	Dr. Burder's Average 38 Years.	Clifton College Average 11 years.	Departure from latter Average.	Number of Rainy Days.
January ...	2·105	3·212	2·491	− 0·386	10
February ...	4·543	2·213	1·757	+ 2·786	23
March ...	0·635	2·252	2·082	− 1·477	8
April ...	0·067	2·117	1·986	− 1·919	2
May ...	1·290	2·399	2·190	− 0·900	10
June ...	1·261	2·551	2·346	− 1·085	9
July ...	4·265	3·051	3·607	+ 0·658	15
August ...	2·388	3·410	2·939	− 0·551	10
September	1·802	3·238	3·117	− 1·315	12
October ...	5·735	3·561	3·644	+ 2·091	21
November ..	2·390	3·050	3·304	− 0·914	15
December ...	2·818	2·834	3·065	− 0·247	17
Year	29·299	33·888	32·528	− 3·229	152

From the above Table it will be seen that the year 1893 was somewhat drier than usual, the deficiency amounting to over three inches. The only months in which the rainfall was above the average were February, July, and October.

There was a period of drought extending over the months of March, April, and May. From the 17th of March till the 17th of April no measurable quantity of rain fell. On the latter day there was a fall of one-twentieth of an inch, and from that time till the 15th of May the rainfall amounted to only ·032 inches—*i.e.*, less than one-thirtieth of an inch. Thus, from March 17th to May 15th, a period of nearly two months, the whole rainfall amounting to only ·082, or less than one-tenth of an inch. This prolonged drought along with the prevailing high temperature in the same period form a very remarkable feature in the weather of 1893.

D. RINTOUL.

Rainfall of 1893.

Week Ending.	Rain. Inches.	Week Ending.	Rain. Inches.
January 7	·030	July 15	·845
,, 14	·475	,, 22	2·645
,, 21	·330	,, 29	·460
,, 28	·410	August 5	1·277
February 4	1·220	,, 12	·120
,, 11	·780	,, 19	nil
,, 18	1·300	,, 26	1·035
,, 25	1·075	Sept. 2	·086
March 4	1·538	,, 9	·758
,, 11	·050	,, 16	nil
,, 18	·075	,, 23	·263
,, 25	nil	,, 30	·690
April 1	nil	October 7	2·580
,, 8	·005	,, 14	·875
,, 15	nil	,, 21	1·350
,, 22	·050	,, 28	·875
,, 29	nil	Nov. 4	·605
May 6	·032	,, 11	·187
,, 13	nil	,, 18	1·115
,, 20	1·095	,, 25	061
,, 27	·155	Dec. 2	·557
June 3	·020	,, 9	·315
10	·365	,, 16	1·152
,, 17	·190	,, 23	·941
,, 24	·530	,, 30	·376
July 1	·176		
,, 8	·270		

Meteorology for the 52 Weeks ending 30th December, 1893.

Height above Mean Sea Level—250 feet.

893. Week Ending		BAROMETRIC PRESSURE at 32° and Sea Level			Mean Temperature	Highest Mean Daily Temperature	Lowest Mean Daily Temperature	Max. Temperature in Shade	Min. Temperature at 4ft above ground	Min. Temperature on ground	Mean Daily Range of Thermometer	Greatest Daily Range of Thermometer	Smallest Daily Range of Thermometer	Mean Humidity	Grains of Vapour in a cubic ft. of air	Prevalent Wind.
		Mean	Highest	Lowest												
		Inches	Inches	Inches												
Jan.	7	30·19	30·46	29·90	26·88	30·25	23·55	35·1	17·7	12·9	8·5	15·9	2·5	—	—	E.
,,	14	30·05	30·42	29·70	34·22	36·55	30·90	39·0	28·3	26·3	4·3	6·7	2·4	89	2.16	N.
,,	21	30·25	30·50	29·91	37·06	40·20	29 50	45·7	23·9	19·3	9·2	17·3	6·0	89	2·54	N. W.
,,	28	30·11	30·42	29·75	41·03	44·80	35·00	49·3	30·4	25·8	9·5	16·6	5·1	91	2·71	W.
Feb.	4	29·97	30·24	29·45	45·96	49·05	43·15	54·3	38·3	34·2	6·9	11·0	2·3	91	3·27	W.
,,	11	30·04	30·41	29·43	42.45	46·70	38·2	49·3	30·0	26·3	8·9	18·8	3·2	86	2·72	W.
,,	18	29·73	30·04	29·26	43·16	45·40	37·75	51·8	34·4	30·4	10·5	15·1	3·7	86	2·90	S.
,,	25	29·33	29·79	28·74	40·71	52·45	31·25	56·3	28·6	25·0	7·2	17·5	0·1	86	2·75	Variable
March	4	29·72	30·26	28·91	43·26	49·70	35·65	54·3	28·4	26·5	10·8	22·9	2·6	90	3·12	W.
,,	11	30·36	30·43	30·25	45·88	49·40	43·95	56·3	33·4	28·2	13 5	21·1	7·5	84	2·78	W.
,,	18	29·89	30·22	29·69	46·21	48·7	41·3	60·8	36·4	29·2	10·4	24·4	2·7	79	2·78	W.
,,	25	30·42	30·54	30·30	46·71	50·90	39·65	64·8	29·2	26·2	25·0	28·6	20·9	74	2·23	Variable
April	1	30·07	30·32	29·86	50·20	51·85	47·30	65·3	36·1	32·6	24·46	28·5	21·2	74	2·62	E.
,,	8	30·31	30·56	30·20	52·76	56·40	48·05	69·3	38·8	35·7	22·8	27·5	17·0	82	3·00	N.E.
,,	15	30·37	30·47	30·25	46·58	52·55	43·15	66·3	32·5	30·7	20·6	27·5	12·2	77	2·55	N.E.
,,	22	30·13	30·29	29·93	58·99	65·3	49·9	79·5	42·7	40·4	20·6	28·4	9·1	69	3·67	S.E.
,,	29	30·09	30·12	30·06	57·44	62·30	49·90	76·8	42·3	41·0	21·2	29·0	15·2	67	3·38	N.E.
May	6	30·25	30·41	30·08	55·72	64·40	48·70	78·3	43·1	40·6	17·56	27·8	7·5	69	3·49	Variable
,,	13	30·33	30·40	30·21	57·00	62·55	51·80	77·3	40·8	39·2	23·8	29·5	19·0	71	3·43	N.
,,	20	29·74	30·05	29·56	59·30	63·45	56·25	73·8	51·2	49·2	12·5	21·4	9 3	82	4·41	Variable
,,	27	30·05	30·32	29·71	56·68	59·75	53·30	66·3	44·7	41·6	13 8	20·6	8·4	74	3·97	N.W.
June	3	30·08	30·25	29·94	57·50	60·25	54·65	68·3	44·2	41·2	15·1	20·9	10·5	72	3·83	Variable
,,	10	30·36	30·41	30·22	60·64	64·15	55·20	73·3	48·2	46·4	15·8	22·1	6·2	81	4·34	Variable
,,	17	30·12	30·32	29·88	64·96	72·1	56 75	84·3	48·2	47·0	21·1	27·8	15·8	73	4·47	N.E.
,,	24	29·83	30·33	29·41	64·01	73·25	56·0	86·1	50·0	46·2	15·5	26·1	7·8	67	4·20	N.W.
July	1	29·91	30·23	29·63	64·39	69·10	57·25	83·1	49 8	45·2	16·8	30·3	7·0	71	4·37	Variable
,,	8	29·99	30·14	29·75	67·43	72·10	62·65	82·3	47·8	No record	20·0	31·5	6·7	74	4·97	Variable

Meteorology for the 52 Weeks—Continued.

Height above Mean Sea Level—250 feet.

1893.	BAROMETRIC PRESSURE at 32° and Sea Level			Mean Temperature	Highest Mean Daily Temperature	Lowest Mean Daily Temperature	Max. Temperature in Shade	Min. Temperature at 4ft above ground	Min. Temperature on ground	Mean Daily Range of Thermometer	Greatest Daily Range of Thermometer	Smallest Daily Range of Thermometer	Mean Humidity	Grains of Vapour in a cubic ft. of air	Prevalent Wind.
Week Ending	Mean	Highest	Lowest												
	Inches	Inches	Inches												
July 15	29·78	30·04	29·60	61·00	63·25	58·70	68.3	52·1	50·1	10·3	13·2	8·1	79	4·59	N.W.
,, 22	29·86	30·10	29·57	61·02	62·65	59·15	67·3	52·0	48·2	11·3	15·3	8·4	79	4·66	N.W.
,, 29	30·08	30·29	29·90	61·84	63·60	59·40	71·5	52·0	50·2	10·6	16·4	4·4	76	4·75	N.W.
August 5	29·91	30·04	29·72	60·99	62·15	59·80	67·1	53·8	51·5	9·24	12·0	6·3	74	4·37	N.W.
,, 12	30·02	30·16	29·89	66·29	72·85	58·05	83·3	49·0	45·0	13·84	20·9	6·9	73	4·51	Variable
,, 19	30·10	30·26	29·78	71·87	74·30	66·15	86·5	60·0	56·7	18·8	25·2	12·3	70	5·93	S.
,, 26	30·03	30·40	29·65	62·23	66 55	58 30	71·4	49·3	45·2	12·4	18·0	8·3	75	4·85	W.
Sept. 2	30·25	30·47	30·19	60·00	64·30	56·2	72·1	47·3	43·5	14·0	17·8	7·6	74	4·37	N.
,, 9	30·06	30·33	29·82	61·27	63·75	57·55	73·8	52·5	47·2	12·91	20·3	3·2	78	4·69	Variable
,, 16	30·22	30·39	29·97	57·02	63·05	53·00	69·3	44·3	39·3	16·4	20 8	11·8	74	4·05	W.
,, 23	29·67	29·98	29 51	53·51	60·40	47·85	62·8	42·2	38·2	10·2	13·7	4·8	82	3·82	W.
,, 30	29·78	30·08	29·28	54·72	58·40	49·45	62·8	43·1	36·7	10·2	12·7	8·1	83	4·00	S.W.
October 7	29·46	29·64	29·22	51·03	55·45	48·45	61·8	42·8	36·5	10·63	14·8	5·3	85	3·59	S.W.
,, 14	29·95	30·24	29·74	51·36	53·45	48·95	60·1	39·9	34·2	12·9	19·9	4·1	85	3·72	W.
,, 21	30·21	30·43	30·00	55·13	59·85	50·90	63·3	44·7	39·1	8·9	15·4	1·5	89	4·23	Variable
,, 28	30·19	30·50	29·90	48·87	52·85	45·30	56·5	38·8	32·5	9·3	13·8	0·4	83	3·32	W.
Nov. 4	29·95	30·21	29·71	45·30	52·85	35·35	55·3	29·1	24·2	10·1	21·2	1·3	86	3·26	W.
,, 11	30·26	30·40	29·99	39·65	44·55	36·55	48·3	31·7	26·7	8·6	10·5	6·9	85	2·31	N.E.
,, 18	29·79	30·40	29·17	40·60	48·75	34·50	56·1	30·8	25·7	8·5	17·3	0·6	90	2·72	Variable
,, 25	30·15	30·50	29·83	38·86	46·65	34·15	50·3	29·5	25·0	9·4	17·8	3·4	81	2·51	N.
Dec. 2	30·14	40·46	29·61	41·34	47·75	29·55	50·8	25·0	22·4	7·8	19·2	2·9	87	2·92	W.
,, 9	29·98	30·41	29·38	41·77	45·45	32·50	50·4	22 6	(?)	11·3	22·7	4·2	86	2·85	W.
,, 16	29·74	30·54	29·18	44·21	48·25	40·25	54·4	35·0	29·2	12·8	19·0	5·5	83	2.93	S.W.
,, 23	29·84	30 34	28·77	44·03	46·30	40·70	52·3	36·2	33·4	8·0	13·5	4·2	86	2·81	S.
,, 30	30·54	30·79	30·17	41·75	46·25	32·20	51·7	30·2	27·8	6·2	10·9	4·0	88	2·81	S.

ANALYSIS OF DEATHS REGISTERED IN THE CITY AND COUNTY OF BRISTOL,

DURING THE YEAR ENDING SATURDAY, 30th DECEMBER, 1893

Registration Districts.	Registration Sub-Districts.	Births.	Deaths.	Under 1 year of age.	Over 1 and under 5 years of age.	Aged 60 years and upwards.	Principal Zymotic Diseases. Small Pox.	Measles.	Whooping Cough.	Diphtheria.	Membranous Croup.	Scarlet Fever.	Enteric Fever.	Typhus.	Influenza.	Others or Doubtful.	Diarrhœa and Dysentery.	Choleraic Diarrhœa.	Total Deaths from Zymotic Diseases.	Erysipelas.	Syphilis.	Rheumatism.	Malignant Disease, Cancer.	General Tubercular Diseases.	Phthisis.	Respiratory. Pneumonia.	Respiratory. Bronchitis & other Diseases of Respiratory Organs.	Nervous System. Diseases of the Brain and Membranes	Nervous System. Diseases of other parts of the Nervous System.	Circulatory. Diseases of the Heart.	Circulatory. Diseases of other Organs of the Circulation.	Digestive. Diseases of the Liver.	Digestive. Diseases of other Digestive Organs.	Urinary. Diseases of the Urinary Organs.	Puerperal. Puerperal Fever. Puerperal Septicæmia.	Puerperal. Puerperal Diseases (not infectious).	Premature Birth. Congenital Malformations.	Senile Decay.	Violence.	Other Causes.	Inquest Cases.	Uncertified Deaths	Rates per 1000 per annum. Birth Rate.	Death Rate.	Zymotic Rate.	Infantile Death Rate per 1,000 Births.
Bristol	St. Mary Redcliff...	257	149	31	18	44	3	...	...	2	...	2	1	...	...	...	5	...	13	...	1	2	5	3	10	9	28	10	16	10	3	1	6	3	...	3	3	7	7	9	19	1	27·8	16·1	1·4	120·6
,, ...	Castle Precincts	139	123	20	10	34	...	1	5	...	..	...	1	...	3	...	2	...	12	1	...	2	1	3	12	6	12	8	7	14	1	1	1	1	1	...	3	8	22	7	27	2	25·9	22·9	1·6	143·8
,, ...	St. Paul	602	380	90	37	108	2	3	4	1	1	3	..	...	6	...	13	...	33	...	3	...	16	14	37	29	59	25	14	37	2	6	18	9	...	1	15	21	9	32	19	7	31·4	19·8	1·4	149·5
,, ...	St. James	226	177	40	18	56	...	3	5	3	2	...	1	..	1	...	7	...	22	...	2	...	6	4	18	8	29	11	10	17	2	5	2	8	...	...	5	13	4	11	14	1	29·3	22·9	2·7	176·9
.. ..	St. Augustine	314	207	50	13	68	...	2	4	1	..	2	...	...	8	...	9	...	26	...	2	3	7	4	19	16	27	6	13	18	2	4	8	8	...	...	6	14	8	16	16	2	22·8	15·0	1·3	159·2
Bedminster ...	Bedminster	1829	837	258	102	184	2	8	24	11	9	5	4	...	22	..	19	...	104	4	9	3	25	33	63	52	89	46	53	65	9	14	39	21	4	5	39	45	18	97	46	11	38·6	17·6	1·7	141·0
Barton Regis ...	Clifton	576	406	69	28	176	1	...	4	3	...	1	6	...	4	...	6	...	25	1	1	3	23	7	25	29	41	27	26	44	5	8	22	21	1	1	9	33	20	34	28	9	19·5	13·7	0·7	119·7
.. ...	Ashley	652	341	73	22	114	1	2	3	2	1	2	...	...	5	...	9	...	25	1	...	3	21	13	39	18	43	19	17	34	3	7	22	10	3	1	14	14	10	24	19	9	25·8	13·5	0·7	111·9
,, ...	St. Philip	1891	919	274	136	165	4	4	28	8	5	20	4	...	6	...	40	1	120	3	4	6	30	30	75	71	149	47	48	62	7	4	40	21	7	8	56	30	20	81	59	23	36·4	17·7	2·1	144·9
,, ...	Westbury	243	212	21	7	119	..	2	3	1	...	...	3	...	10	...	5	...	24	...	...	1	13	4	19	12	28	20	12	16	4	2	7	8	...	...	9	21	3	9	5	...	15·1	13·2	0·8	127·5
,, ...	Extra-Municipal Institutions	59	366	16	7	197	6	...	...	...	...	...	1	...	3	...	7	...	17	1	4	2	12	8	34	14	33	71	24	30	7	4	6	10	..	...	3	66	3	17	2	...	...	...	..	...
,, ...	Not belonging to Borough..	...	124	7	13	18	...	..	...	3	...	..	5	...	...	...	2	...	10	..	1	...	13	3	12	6	2	4	4	12	2	2	11	10	...	...	2	...	20	10	22	...	...	...	...	. .
	TOTALS	6788	4241	959	411	1283	19	25	80	35	18	35	26	...	68	..	124	1	431	11	27	25	172	126	363	270	550	294	244	359	47	58	182	130	16	19	164	272	144	347	276	65	30 14	18·83	1·61	141·27

NOTIFICATIONS RECEIVED DURING THE YEAR BY SUB-DISTRICTS AND AGE GROUPS.

Deaths in Public Institutions.		Registration Sub-Districts.	SMALL POX.					CHOLERAIC DIARRHŒA.			DIPHTHERIA.					MEMBRANOUS CROUP.					ERYSIPELAS.			SCARLET FEVER					THE FEVERS KNOWN AS																TOTAL CASES IN EACH SUB-DISTRICT
																													TYPHUS				TYPHOID, ENTERIC				RELAPSING.			CONTINUED OR DOUBTFUL.			PUERPERAL.	
			Under 5.	5 to 10.	10 to 15.	15 upwards.	TOTAL.	Under 5.	5 upwards.	TOTAL.	Under 5.	5 to 10	10 to 15.	15 upwards.	TOTAL.	Under 5.	5 to 10.	10 to 15.	15 upwards.	TOTAL.	Under 5.	5 upwards.	TOTAL.	Under 5.	5 to 10.	10 to 15.	15 upwards.	TOTAL.	Under 5	5 to 10.	10 upwds.	TOTAL.	Under 5	5 to 10	10 upwds.	TOTAL.	Under 5.	5 upwds.	TOTAL.	Under 5	5 upwds.	TOTAL.		
General Hospital	217	St. Mary Redcliff ...	3	2	1	14	20	...	...	...	3	1	...	...	4	...	...	...	...	...	...	8	8	6	11	5	3	25	...	...	...	...	...	...	1	1	...	...	...	...	...	...	1	59
St. Peter's Hospital	...	Castle Precincts ...	...	...	...	5	5	...	...	...	...	1	...	...	1	1	...	...	...	1	...	2	2	12	11	4	5	32	..	...	..	...	1	...	...	1	...	...	...	...	...	...	1	43
Royal Infirmary	202	St. Paul	...	...	2	21	23	...	...	...	1	2	...	...	3	1	...	...	...	1	..	24	24	39	39	23	11	112	...	...	...	...	...	1	7	8	...	...	...	...	1	1	1	173
Children's Hospital	51	St. James	...	...	...	4	4	..	...	...	2	...	1	...	3	2	...	...	...	2	...	9	9	9	10	3	5	27	...	...	...	...	...	...	4	4	...	...	...	..	...	...	...	49
Home for Crippled Children ...	...	St. Augustine ...	...	1	2	5	8	...	...	...	2	...	...	1	3	1	...	...	...	1	...	4	4	11	11	18	20	60	...	...	...	...	...	...	2	2	...	...	...	...	...	...	3	81
SANITARY AUTHORITY'S —		Bedminster	2	2	1	26	31	...	...	..	12	8	4	8	32	10	2	1	...	13	6	57	63	57	73	22	18	170	...	...	...	..	1	7	16	24	...	...	...	...	..	...	10	343
Small Pox Hospital	13	Clifton	...	...	.	8	8	...	...	...	4	3	...	7	14	1	...	...	...	1	...	18	18	32	37	25	21	115	..	..	...	...	...	1	24	25	...	..	...	...	1	1	3	185
Fever Hospital	3	Ashley	1	1	1	8	11	...	...	...	3	5	3	2	13	2	...	...	...	2	1	19	20	65	93	49	26	233	...	...	...	...	..	...	6	6	...	...	...	...	4	4	3	292
EXTRA MUNICIPAL—		St Philip	5	1	5	44	55	...	1	1	5	13	2	1	21	6	...	...	...	6	2	68	70	192	152	55	27	426	...	..	...	...	2	5	22	29	..	...	...	...	...	...	8	616
Bristol Union Workhouse ...	142	Westbury	...	...	..	1	1	...	...	...	1	2	1	11	15	2	1	1	...	4	...	12	12	8	22	16	19	65	..	...	...	...	1	2	7	10	...	...	...	...	...	...	...	107
Barton Regis Union Workhouse	119	Admitted to Public Institutions from Outside of Borough	...	...	...	...	...	...	...	..	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13	13	...	...	...	..	...	. .	...	15
Long Ashton Union W'house, Bed.	30																																											
Lunatic Asylum	74																																											
TOTAL ...	851	Total Cases of each Disease	11	7	12	136	166	...	1	1	35	35	11	30	111	26	3	2	...	31	9	221	230	431	459	220	155	1265	...	...	...	...	5	16	102	123	...	...	...	...	6	6	30	1963

The average age at Death of Persons aged 60 years and upwards was 72 years and 10 months. Births of Illegitimate Children 218. Deaths of Illegitimate Children 69.
Average Death Rate for 10 Years, 19·09. · Death Rate of last year, 20·85.

K² 3.

(A) TABLE OF DEATHS during the Year 1893, in the Urban Sanitary District of Bristol, classified according to DISEASES, AGES, and LOCALITIES.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	Mortality from all causes, at subjoined ages.								Mortality from subjoined causes, distinguishing Deaths of Children under 5 years of Age.																					
									1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
													Fevers.																	
	At all ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards		Smallpox.	Scarlatina.	Diphtheria	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued	Relapsing	Puerperal.	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhœa and Dysentery.	Rheumatic Fever.	Ague.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Injuries.	All Other Diseases.	TOTAL.
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)																						
Saint Mary Redcliff ...	126	26	15	6	5	34	40	Under 5		2	1											4			2	12		2	18	41
								5 upwds.																	7	21	7	2	48	85
Castle Precincts ...	112	20	8	8	11	39	26	Under 5						1						1	4	1	1			5	1	1	13	28
								5 upwds.									1		1				1		12	13	10	19	27	84
Saint Paul	335	87	27	15	11	110	85	Under 5		2										3	4	10			2	26	1	2	70	114
								5 upwds.		1												3			32	50	31	2	103	221
Saint James	150	36	12	3	6	48	45	Under 5												3	5	7				9			24	48
								5 upwds.																	16	22	14	2	48	102
Saint Augustine ...	177	44	9	4	8	56	56	Under 5		1										2	3	6				9		1	31	53
								5 upwds.		1												2	2		19	27	14	3	56	124
Bedminster	756	244	90	33	34	218	137	Under 5		4	6	5								6	22	14			4	42	3	2	226	334
								5 upwds.			5			1			4		3	2	1	3	1		56	75	56	8	207	422
Clifton	368	68	19	10	11	113	147	Under 5			1										4	2				22		1	57	87
								5 upwds.		1	1			4			1		1			4			25	34	40	13	157	281
Ashley	329	70	22	27	14	104	92	Under 5			1	1								2	3	7				15		2	61	92
								5 upwds.	1	1							3		1			2	1		36	39	32	8	113	237
Saint Philip	828	273	119	31	31	249	125	Under 5		14	4	4								4	26	38			8	86		2	206	392
								5 upwds.		4	2						6		3			2	1		62	107	59	8	182	436
Westbury	209	32	7	8	9	54	99	Under 5												2	3	3				7			24	39
								5 upwds.						3								2			21	25	15		104	170
Royal Infirmary ...	202	16	26	16	24	96	24	Under 5			5	3									1					4		6	23	42
								5 upwds.			2			6			1				1				14	23	17	25	71	160
General Hospital ...	217	19	16	18	29	115	20	Under 5			1	2									2	4				7		4	15	35
								5 upwds.			1			10					1		1	1			11	24	27	27	79	182
Children's Hospital ...	51	7	30	13	1			Under 5		1	4	3										3				7	1	1	17	37
								5 upwds.			1														4	5	1		3	14
Saint Peter's Hospital ...	0							Under 5																						
								5 upwds.																						
Small Pox Hospital ...	13	1	1	1	2	8		Under 5	2																					2
								5 upwds.	11																					11
Fever Hospital... ...	3	1	2					Under 5		3																			3	3
								5 upwds.																						
Bristol Union Workhouse...	142	5	4	1	2	58	72	Under 5	2																				7	9
								5 upwds.																	15	7	16	1	94	133
Barton Regis do do	119	7	3	2	4	39	64	Under 5														1				2			7	10
								5 upwds.	2													5			15	17	6		64	109
Long Ashton do do	30	3	1			9	17	Under 5																					4	4
								5 upwds.	1																2	5		1	17	26
Lunatic Asylum ...	74				4	55	15	Under 5																						
								5 upwds.						1					1			1				7	9	1	54	74
TOTALS	4241	959	411	196	206	1405	1064	Under 5	4	27	23	18		1						23	77	100	1		16	253	6	24	797	1370
								5 upwds.	15	8	12			25			16		11	2	3	25	6		347	501	353	120	1427	2871
The subjoined numbers have also to be taken into account in judging of the above records of mortality.																														
Deaths occurring outside the district among persons belonging thereto.			No	Return				Under 5																						
								5 upwds.																						
Deaths occurring within the district among persons not belonging thereto.			No	Return				Under 5																						
								5 upwds.																						

LOCAL GOVERNMENT BOARD.—Table B.

$K^{2}11$

(B). Table of **Population, Births, and of New CASES of Infectious Sickness,** coming to the knowledge of the Medical Officer of Health, during the year 1893, in the Urban Sanitary District of Bristol; classified according to DISEASES, AGES, and LOCALITIES.

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities. (a)	Population at all Ages.		Registered Births (c)	Aged under 5 or over 5. (d)	New Cases of Sickness in each locality coming to the knowledge of the Medical Officer of Health.													Number of such Cases Removed from their Homes in the severa localities for treatment in Isolation Hospital												
	Census, 1891. (Unrevised) (b)	Estimated to middle of 1893.			1	2	3	4	5	6	7	8	9	10	11	12	13	1	2	3	4	5	6	7	8	9	10	11	12	13
					Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers. Typhus.	Enteric or Typhoid.	Continued	Relapsing.	Puerperal.	Cholera.	Erysipelas			Small Pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Fevers. Typhus.	Enteric or Typhoid.	Continued	Relapsing.	Puerperal.	Cholera.	Erysipelas.		
St. Mary Redcliff H H ...	9,295	9,227	257	Under 5	3	6	3											3	1											
				5 upwds	17	17	1			1			1		8			16	2				1							
Castle Precincts	5,584	5,352	139	Under 5		12		1		1									2		1									
				5 upwds.	5	20	1						1		2			5	7	1										
St. Paul	19,036	19,126	602	Under 5		39	1	1											1	1	1									
				5 upwds.	23	73	2			8	1		1		24			23	2				2							
St. James H	7,831	7,704	226	Under 5		9	2	2											2	2	2									
				5 upwds.	4	17	1			4					9			4	2	1			2							
St. Augustine H	13,795	13,734	314	Under 5		11	2	1											1	2	1									
				5 upwds.	8	49	1			2			3		4			8	5											
Bedminster H	45,622	47,366	1829	Under 5	2	57	12	10		1					6			2	8		3									
				5 upwds.	29	113	20	3		23			10		57			27	15	1			7							
Clifton	29,345	29,493	576	Under 5		32	4	1												1	1									
				5 upwds.	8	83	10			25	1		3		18			8	13	2			7							
Ashley	24,051	25,205	652	Under 5	1	65	3	2							1			1	7	1	1									
				5 upwds.	10	168	10			6	4		3		19			9	8	1				4						
St. Philip H	51,624	51,912	1891	Under 5	5	192	5	6		2					2			5	8		1		2							
				5 upwds	50	234	16			27			8		68			45	16	2			10							
Westbury	15,482	15,912	243	Under 5		8	1	2		1									1											
				5 upwds.	1	57	14	2		9					12			1	7	2			3							
Bristol General Hospital ...	Admitted from outside of Borough.			Under 5																										
				5 upwds.		2				6													6							
Bristol Royal Infirmary ...				Under 5			1													1										
				5 upwds.		1				6													6							
Children's Hospital				Under 5			1													1										
				5 upwds.						1													1							
St. Peter's Hospital ...				Under 5																										
				5 upwds.																										
Small Pox Hospital... ...	Admitted from outside of Borough.			Under 5																										
				5 upwds.																										
Fever Hospital				Under 5																										
				5 upwds.																										
Bristol Union Workhouse...			59	Under 5																										
				5 upwds.																										
Barton Regis Workhouse ...				Under 5																										
				5 upwds.																										
Long Ashton Workhouse ..				Under 5																										
				5 upwds.																										
Lunatic Asylum				Under 5																										
				5 upwds.																										
Totals ..	221,665	225,028	6788	Under 5	11	431	35	26		5					9			11	33	9	11		2							
				5 upwds.	155	834	76	5		118	6		30		221			146	77	10			45	4						

Notification of Infectious Disease has been compulsory in Bristol since February 12th, 1890. Only those Diseases Scheduled in the Act are at present Notifiable. The Isolation Hospitals used by the Sick of the District are :—

NAME OF HOSPITAL.	DISEASES ISOLATED.	DISTRICT WHERE SITUATED.
1.—Sanitary Authority's Hospital	Small Pox and Scarlet Fever	Partly in St. Philip and partly in St. Mary Redcliff.
2.—Guardians' Hospital	Small Pox, Fever, Erysipelas	Stapleton, outside City.
3.—Barton Regis Guardians' Hospital	Small Pox and Fever	Eastville, outside City.
4.—Bedminster Guardians' Hospital	Small Pox or Fever...	Bedminster, outside City
5.—Children's Hospital	Scarlet Fever, Erysipelas	St. Augustine.
6.—Bristol General Hospital	Enteric Fever	Partly in St. Mary Redcliff, and partly in Bedminster.
7.—Royal Infirmary	Ditto	St. James.

Diphtheria is, as a rule, only admitted into Public Institutions in cases where operation is necessary.

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